

Volume

#

R0255

BOOK A-255

INDEX DIAGRAM.

Township 20 S., Range 20 E.

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PRELIMINARY OATHS OF ASSISTANT S.

WE,

and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman.

, Chainman.

Subscribed and sworn to before me this _____
day of _____, 189 }



WE,

and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189 }



WE,

and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this _____
day of _____, 189 }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

, Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 }



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PRELIMINARY OATHS OF ASSISTANTS.

WE, and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



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INDEX DIAGRAM.

Township 23 S., Range 16 E.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



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INDEX DIAGRAM.

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309	308	293	281	268	259		
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307	306	291	279	267	257		
195	30 305	29 290	28 277	27 266	26 256	25 220	
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194	31 302	32 287	33 274	34 264	35 255	36 219	
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PRELIMINARY OATHS OF ASSISTANTS.

We, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will lay the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true length of all lines; that we will in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

..... Chairman,

..... Chairman,

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of mountmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

..... Mountman,

..... Mountmate,

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

..... Axman,

..... Axteron,

Subscribed and sworn to before me this }
day of , 189 }



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

..... Flagman,

Subscribed and sworn to before me this }
day of , 189 }



BOOK A-255

INDEX DIAGRAM.

Township 20 S, Range 21 E

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647	646		630		616		604		592		
566	645	17	628	16	615	15	603	14	590	13	561
644	643		627		615		602		589		
19	642	20	626	21	613	22	601	23	588	24	536
641	640		625		612		600		587		
30	639	29	623	28	611	27	599	26	586	25	535
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BOOK A-255

36.3.B.

FIELD NOTES

*Retracement
OF THE SURVEY OF THE**Fourth Standard Parallel South**through,**Range 16 East**of the Salt Lake Base and Meridian,
State of Utah.*

AS SURVEYED BY

*Alfred B Lewis and David N Brown, United States Deputy Surveyors,
Under his Contract No. 219, dated November 12th, 1897
Survey commenced September 15th, 1898
Survey completed September 17th, 1898*

G-161

*Instrument & Principal heights m. elev. 826-
" " 4-00-79 ✓ 9-12-7
" " 1-79-96 ✓*

NAMES AND DUTIES OF ASSISTANTS.

A. H. Davis.....Chairman

Geo. Mortenson.....Chairman

F. W. Webb.....Moundman

F. W. Webb.....Arenas

William S. Webb.....Flagman

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BOOK A-255

INDEX DIAGRAM.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, A H Rock,

and Geo Mortenson

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of ~~the fourth stand parallel south through range 16 East and~~
~~through range 21 East Salt Lake Base and~~
~~meridian, Utah.~~

A H Rock

, Chainman.

Geo Mortenson

, Chainman.

Subscribed and sworn to before me this 10th

day of September, 1898



David H Blossom

U.S. Ass't Surveyor

WE, F W Webb

and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~me~~ to the best of ~~our~~ my skill and ability, in the survey of ~~the fourth stand parallel south through range 16 east and~~
~~range 21 east, of the Salt Lake Base and~~
~~meridian, Utah.~~

F. W. Webb

, Moundman.

, Moundman.

Subscribed and sworn to before me this 10th

day of September, 1898



David H Blossom

U.S. Ass't Surveyor

WE, F W Webb

and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ~~me~~ to the best of ~~our~~ my skill and ability, in the survey of ~~the fourth stand parallel south through range 16 east and~~
~~range 21 east of the Salt Lake Base and~~
~~meridian, Utah.~~

F. W. Webb

, Axman.

, Axman.

Subscribed and sworn to before me this 10th

day of September, 1898



David H Blossom

U.S. Ass't Surveyor

I, William L Webb

, do solemnly swear that I will well and truly

perform the duties of flagman according to instructions given ~~me~~, to the best of my skill and ability, in the survey of ~~the fourth stand parallel south through range 16~~
~~East and in range 21 east of the~~
~~Salt Lake Base and meridian, Utah.~~ William L Webb, Flagman.

Subscribed and sworn to before me this 10th

day of September, 1898



David H Blossom

U.S. Ass't Surveyor

Retracement of 4th Standard Parallel South, or 16 E.

Retracement commenced Sept 15 1898
and completed with a 2m and
L. E. Gurley light mountain
transit (no number) with solar
attachment. The horizontal
limb is provided with two
double verniers placed opposite
to each other, reading to single
minutes of arc. There is
also the least count of the
verniers of the latitude and
declination arcs.

The instrument was exam-
ined, tested on the true
meridian at Salt Lake City,
found correct and was
approved by the Surveyor
General for Utah Sept
1st 1898.

To examine the adjust-
ments of the transit and
correct the level and col-
limation errors; then to
test the solar apparatus
by comparing its indications
resulting from solar
observations made during
a.m. and p.m. hours
with a true meridian de-
termined by observations
on Polaris, we proceed as
follows.

At the standard cor. of 9 P.M.
S 15° and 16 E which is
a sand stone 11 x 10 x 10 ins
above ground marsh and
witnessed as described by
the Surveyor General;
latitude $39^{\circ}0'2''$ N; longitude
 $110^{\circ}1'2''$ W; we set P.G. $39^{\circ}0'2''$ N
on the lat arc $2^{\circ}48'N$, on

Retracement of 4th Standard Parallel South, R 16 E.

The decl. arc and at 4^h 00 m
p.m. l.m.t. determine
with the solar a true meridian
and mark a point thereof on
a stone firmly set in
the ground 5 cts N of the coe.

At 7^h 47^m p.m. l.m.t.
we observe Polaris at eastern
elongation in accordance
with the Manual of Instruction
and mark a point in the
line thus determined, on
a plug driven in the ground
5 cts North of our station.

Left 16-1898 at 7^h 00 m a.m.
l.m.t. we lay off the azimuth
of Polaris $1^{\circ} 35.5'$ to the west
and mark the true meridian
thus determined by cutting
a small groove in the
stone set Sept 15-1898, on
which the true meridian
falls 0.3 ins east of the
mark determined by the
solar.

At 8^h 00 m a.m. l.m.t.
we set off $39^{\circ} 02' N$ on the
lat. arc $2^{\circ} 31' N$ on the decl.
arc and mark a point in
the true meridian determined
with the solar by a cross
on the stone already set
5 cts N of our stat. This
mark falls 0.4 ins east
of the true meridian
established by the Polaris
observation.

The solar apparatus by
p.m. and a.m. observation

Accurment of 4th standard Parallel south, through 03 16 E.

defines position for true meridians respectively about $0'16''$ west and $0'21''$ east of the true meridian established by Polaris observations; therefore we conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at $8^{\circ}30'W$ a.m. is $15^{\circ}18'$ or the angle thus determined reduced by the table page 100 gives the mean mag decl $15^{\circ}15'E$

From the standard cor of Tps 30 S R.S 15 and 16 East described above run East on a retrace ment line on the S. boundary of sec 31.

over rolling bunch.

20.18 Intersect the closing cor of secs 4 and 5 T 2 S R 16 E which is a sand stone 6×8 x 4 ins above ground marked and intimated as described by the Surveyor General. Ascend.

30.00 Top of low ridge lies N in and S.E. oriented.

40.29 Fall 2 lks N of old standard by sec cor which is a sand stone $10 \times 7 \times 8$ ins above ground marked and intimated as described by the Surveyor General. Ascend.

Retracement of 4th Standard Parallel south, through 03° 16' E

42.00	To top of small ridge lies N.E. and S.E. descended.
44.50	East edge of bench bears N.E. and S.E. Descend.
46.00	Foot of bench.
- 80.53	Fall 30 ftks north of standard cor to secs 31 and 32 which is a sandstone 12 x 4 x 8 ins above ground marked and intersected as described by the Surveyor General. The course of the S. bdy of sec 31 is therefore S 59° 47'E. Land mountainous. Soil sand and gravel is 2nd and 3rd rate. No timber. Mountainous land on 80.53 chs.

2.00	East on S bdy of sec 32. From standard cor to secs 31 and 32 descended gradually enter river bottom. Enter Cottonwood.
7.00	Wagon road runs N and S
9.00	Irrigation canal flows south. 15 ftks wide.
10.73	Right bank of Green river. Old meander cor to fract secs 4 and 32 has been washed away, therefore at this point we set on sandstone 18 x 9 x 6 ins 12 ins in the ground for temp meander cor of fract secs 4 and 32 marked S.C. on N and N.C. on E faces and raised a mound of stone 2 ft high 1 1/2 ft high west of cor. Pits impracticable

Detachment of 4th Standard Parallel South, Through 0° 16' E.

To determine dist across river we set a flag on line on left bank of river then measure a base line south 12 chs to a point whence the flag bears N 44° 30' E, from the flag the south end of the base bears S 44° 30' W. The required dist is therefore taking $44^{\circ} 30' \times$ base or $.88270 \times 12 = 11.79$ chs.

$$11.79 \text{ chs} + 10.73 \text{ chs} = 22.52 \text{ chs}$$

Chain went 2.36 chs

$$22.52 \text{ chs} - 2.36 \text{ chs} = 20.16 \text{ chs}$$

20.16 Left bank of Green River on large island. No old meander cor can be found, therefore we set a cottonwood post 3 ft long 4 ins square 24 ins in the ground for temporary center cor of fruit sites 3 and 32; marked MC 01, T 20 S, S 3 on N; 0° 16' E on E and T 21 S, S 3 on S faces. dug a pit 36x36x12 ins & ft East of post; and raised a mound of earth 4 ft high 2 ft high East of cor.

Then we run on island through dense undergrowth. Enter heavy timber.

25.00 Fall 35 lbs N of old 1/4 sec cor which is a cottonwood post 3 ins square and 2 ft above ground marked and treated as described by the Surveyor General. Since the post is badly decayed we set in its place a sandstone $24 \times 8 \times 8$ ins 18 ins in the ground for standard 1/4 sec

40.03

Tracement of 4th Standard Parallel south, through R 16 E.

cor marked S.C. $\frac{1}{4}$ on N face
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.

Since the course of line
to $\frac{1}{4}$ sec cor is $589^{\circ}30'E$
we return to tiny meander
cor first set on right
bank of river and move
the same 9 lbs. south, witness
ing the same as described
above. This makes dist from
standard cor of secs 31 and 32 to
right bank of river = 10.74 chs.

We then go to tiny meander
cor on left bank of river
and move the same south
18 links and establish it
as permanent meander
cor to fruct secs 3 and 32
witnessing the same as above
described.

This makes dist from
standard cor of secs 31 and
32 to meander cor on
left bank of river = 30.17 chs
and dist - of from standard
cor to secs 31 and 32 to
 $\frac{1}{4}$ sec cor = 40.04 chs.

Then from $\frac{1}{4}$ sec cor
above described we run
 $589^{\circ}30'E$ on S side sec 32
direct through dense
undergrowth and cottonwood
timber.

44.51 Gully drains south.

46.91 Fence bears N and S, encloses

field claimed by E. Garn.

49.30 Fence bears N & S and $589^{\circ}E$.

61.23 On old bank of river.

No meander cor can

Retracement of 4th stand parallel south, through 0316 E.

be found, therefore at this point we set a cottonwood post 3 ft long 4 in square 24 ins in the ground for meander cor of fence sees 3 and 32 marked N.C. on E., T 20 S S 32 on N, Q 16 E on W T 21 S S 3 on S faces; from which a,

cottonwood 10" diam bears S 58° E
34 lks dist marked.

T 21 S Q 16 E S 3 N.C. B.T.

A cottonwood 12" diam bears N 24° E
27 lks dist marked.

T 20 S Q 16 E S 32 N.C. B.T.
ground.

62.91 Lower river bar submerged
in time of high water.
Cross fence bears 14 and 8
Enters field owned by C Game
Leave timber.

65.61 East edge of field.
Enters dense willow brush.

On sand bar at edge of
water east channel of
Green River.

We measure across river
with steel tape and find
dist to be 5.00 chs.

71.44 dt 5.00 chs makes

Left bank of Green River
East channel.

No old meander cor can
be found therefore at
this point we set a
cottonwood post 3 ft long
4 in square for meander
cor of fence sees 3 and 32
marked N.C. on E
with T 20 S S 32 on N, Q 16 E
on W T 21 S S 3 on S faces

Tracement of 4th Standard Parallel South, through 8° 16' E.

from which a

Cottonwood 24" diam bears
85° E 70 lbs dist marked
T 21 S R 16 E S 3 M.C.B.T.

A cottonwood 12" diam bears
N 15° W 12 lbs dist marked
T 20 S R 16 E S 32 M.C.B.T.

From this cor E Grinn's
water wheel bears S 12° 30' W
about 15 chs dist.

Enter cottonwood grove.

- 80.41 At this point we intersect
old stump of post, the top
of which has decayed and
been destroyed. The staled
bearing trees are in proper
position as regards course
and dist to the above
stump therefore we con.
Check that this is all that
remains of old standard
cor of secs 32 and 33. and
we replace same by a
sand stone 16 x 6 x 8 also 11 ins
in the ground for standard
cor of secs 32 and 33
marked S.C. on N face
with 4 grooves on E and
2 grooves on W faces
and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$
ft high N of cor.
This impracticable
Land mountainous and
rolling.

Soil sandy and stony. Subsoil
Timber Cottonwood on 41.88 ac.
mountainous land or land
covered with dense under-
growth and heavy timber
on 80.41 chs.

Placement of the 4th Stand Parallel south through R 16 E.

The course of the south boundary of sec 32 is therefore S 89° 30' E Sept 16, 1888: at 0400 m. L. M. T. Sun obscured by dense foliage. Impossible to take lat observation.

From the cor of secs 32 and 33 as re-established by us we run east on the south boundary of sec 33...

Through cottonwood trees.

2.40 County road bears N and S. Larch trees.

5.00 Foot of blue clay bluffs.
Assured.

15.00 Top of bluffs bear N and S.
Gulches over hills and gullies.

21.75 Fall 15 ft. N. of old
monument; no closing cor
to secs 2 and 3 can be found.
Wash drains N.E.

35.00 Fall 21 ft. N. of old stand 1/4 sec
cor which is a sand stone
10 x 6 x 8 ins above ground
marked and witnessed
as described by the Surveyor
General.

42.00 Gully drains N. W.

79.85 Fall 65 ft. N. of old stand
cor of secs 33 and 34 which is
a flint rock 7 x 5 x 10 ins
above ground marked and
witnessed as described by
the Surveyor General.

The corner of the S. bdy
of sec 33 is therefore S 89° 32' E
Larch mountains.

Soil sand and clay.

2nd and 3rd rate.

tracement of the 4th stand parallel south through R 16 E

Timber cottonwood on 240 chs.
mountainous land on 78.95 chs

East on the south bank of see
34.

Over rolling sand and clay
hills.

26.85 Fall 50 lks N of old stand
on see 1 and 2 which is a
sandstone $8 \times 6 \times 10$ in above
ground marked and witnessed
as described by the Surveyor
General.

40.10 Fall 10 lks west of old stand
 $\frac{1}{4}$ see cor which is a limestone
 $7 \times 3 \times 16$ in above ground
marked and witnessed as
described by the Surveyor
General.

8.01 Fall 71 lks west of old stand
on of see 34 and 35 which
is a sandstone $9 \times 3 \times 16$ in
above ground marked and
witnessed as described by
the Surveyor General.

The course of the S bank
of see 34 is therefore $58^{\circ} 30' 5$
and rolling.

Sand sand and clay.

Sand and sand & etc.

No timber.

Rolling land on 80.18 chs.

Sept 16 1898.

Sept 17 - 1898. At 8:00 a.m.
I a.m. to set off $39^{\circ} 0' 2$ N
the lat are $2^{\circ} 0' 8$ in on the
dial are and determine
a true meridian with the

tracement of the 4th Standard Parallel south through 0310

solar at the standard cor of
secs 3 4 and 35.

I hence now run east on the
S. Ably of sec 35.

low rolling sand hills.

10.00 Flat hollow drains 3 in.

21.00 Gully drains 3 in.

No closing cor for Tl 21 S

Rs 16 and 17 E can be found

fall 41 lks north of old stand
by sec cor which is a limestone
8 x 3 x 12 ins above ground
marked and witnessed as
described by the Surveyor
General.

65.00 wagon road to coal mine
bears N.E. and 3 in.

- 79.90 Fall 78 lks north of old stand
cor to secs 35 and 36 which
is a sand stone 7 x 6 x 10 in
firmly set but no pits are
visible.

The course of the Ably of
sec 35 is therefore S 89° 27' E

Land rolling.

Soil sandy 3rd rate.

No timber.

Mossy talus land on 79.90.

East on S. Ably of sec 36.

low rolling sand hills.

39.90 Fall 33 lks north of old standard
by sec cor which is a sand
stone 14 x 6 x 18 ins above ground
firmly set but no pits are
visible.

79.78 Fall 58 lks north of old
standard cor of Tl 20 S

Rs 16 and 17 E which is
a quartzite 11 x 4 x 16 ins

Tracement of the 4th Standard Parallel south through R16

soil ground plainly marked,
but no pits are visible.
The course of the Survey of
sec 36 is therefore $389^{\circ} 0.5' E$
Land rolling.

Soil sandy, 3rd rate.
No timber.

Rolling land over 79.78 chs.

The total something of the
fourth standard parallel south
through range 16 E is therefore
3.69 chs.

The total easting is 480,74 chs
Sept 17-1898: At this corner
we set off $2^{\circ} 0' 3' N$ on the due
east and at 0.00 m line, t.
observe the sun on the
meridian. The resulting lot
of the 4th Standard Parallel south
is $39^{\circ} 0' 2' N$.

Note: This being the only retracement
of standard parallel upon
which F. W. Webb and William
L. Webb were employed on
take their final oaths.

Sept 17th 1898.

No officer authorized to administer
oaths other than myself
being available without great
expense, inconvenience and
delay I administer the
required preliminary and
final oaths.

David H. Blossom
U.S. Dep Surveyor

For General description see
subdivisions of this township.

Alfred B. Lewis
David H. Blossom
U.S. Dep Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blawson, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the fourth standard parallel south through range 16 East of the Salt Lake Base and meridian, Utah, showing the respective capacities in which they acted:

....., Chainman.

....., Chainman.

F. W. Webb....., Moundman.

....., Moundman.

F. W. Webb....., Axman.

....., Axman.

William L Webb....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blawson, United States Deputy Surveyor, in surveying all those parts or portions of the Fourth Standard Parallel south through Range 16 East of the Salt Lake Base and meridian, State of Utah.

....., of the

....., meridian,, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

....., Chainman.

....., Chainman.

F. W. Webb....., Moundman.

....., Moundman.

F. W. Webb....., Axman.

....., Axman.

William L Webb....., Flagman.

Subscribed and sworn to before me this 17th }

day of September, 1898 }

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O NEAL O
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David H Blawson
U.S. Dep. Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____
of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189_____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah October 31st, 1897
returning the 4th Standard Parallel South
through Range 16 East of the Salt Lake Base Meridian Utah

executed by *Alfred B. Morris & David H. Blossom*
under ^{my} contract No. *219*, dated *December 12th*, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob J. Blair
United States Surveyor General.

I certify that the foregoing transcript¹ of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

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BOOK A-255

36.3.B.

FIELD NOTES

Retracement
OF THE SURVEY OF THE

Green River Guide Meridian

through

Township 20 South

between

Ranges 15th and 16 Eastof the Salt Lake Base and Meridian,
State of Utah.

AS SURVEYED BY

Alfred B Lewis and David H Blaevon, United States Deputy Surveyors

Under his Contract No. 219, dated November 12th, 1897Survey commenced September 18^m, 1898Survey completed September 18th, 1898

6-161

Retracement 9 m. Ch. Dis-
2-40-17 ft. 3-10-05

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock

Chairman

G. Mortanson

Chairman

F. W. Webb

Groundsman

F. W. Webb

Axeman

William D. Webb

Flagman

BOOK A-255

INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, A. H. Rock,

and G. Mortenson,

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of ~~Green River Guide Meridian through T 20 S between ranges 15 and 16 East and running of Green River Guide Meridian through Tps 22 and 23 south between ranges 15 and 16 East of the Salt Lake Base and Meridian, Utah.~~ A. H. Rock, Chainman.

A. H. Rock

G. Mortenson, Chainman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



I, L. W. Webb

and

David H. Blossom.

U.S. Dep Surveyor

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ^{me} to the best of ^{my} skill and ability, in the survey of ~~Green River Guide Meridian through T 20 S between ranges 15 and 16 East and running of Green River Guide Meridian through Tps 22 and 23 south between ranges 15 and 16 East of the Salt Lake Base and Meridian, Utah.~~ L. W. Webb, Moundman.

Moundman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



I, P. W. Webb

and

David H. Blossom,

U.S. Dep Surveyor

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ^{me} to the best of ^{my} skill and ability, in the survey of ~~Green River Guide Meridian through T 20 S, between ranges 15 and 16 East and running of Green River Guide Meridian through Tps 22 and 23 south, between ranges 15 and 16 East of the Salt Lake Base and Meridian, Utah.~~ P. W. Webb, Axman.

Axman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



I, William L. Webb

David H. Blossom,

U.S. Dep Surveyor

do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of ~~Green River Guide Meridian, through T 20 S, between ranges 15 and 16 East and running of Green River Guide Meridian through Tps 22 and 23 south, between ranges 15 and 16 East of the Salt Lake Base and Meridian, Utah.~~ William L. Webb, Flagman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



David H. Blossom,

U.S. Dep Surveyor

Retracement of Green River Guide meridian bet Rs 15 & 11C
T 20 S

Retracement commenced Sept 18
1898 and executed with a
W. and L. E. Gurley light mon-
tane transit with solar attach-
ment for a description of
which see book "A"

At the standard cor of
T 20 S R's 15 and 16 E here-
before described we sighted
over the true meridian estab-
lished at this cor by Polaris
observation Sept 15 1878.
See book "A"

Please see run north on
a retracement line between
31 and 36.

Ascend gradually.

- 30.00 Top of low bench bears
N.W. and S.E.
32.50 Wash drains east. Ascend
39.00 Top of small ridge bears N.W. and
S.E. ascend.
39.89 Fall 21 lbs west of old 'Y' cor
cor 11x5x7 ins above ground
marked and witnessed as
described by the Surveyor
General.
descend.
47.65 Wash drains east. Ascend.
68.75 Top of ridge bears N. and S.E.
descend.
78.80 Broad flat wash drains east.
ascend.
79.80 Fall 5-4 lbs west of old cor
to secs 25, 30, 31 and 36 which
is a sand stone 18x10x16 ins
above ground marked and
witnessed as described by
the Surveyor General.
The cornering this line is
therefore N. 0° 28' E.

Tracement of Lower River Guide Meridian at Rs 15 and 16 E
T 30 S.

Land mountainous.
Soil stony and sandy.
2nd and 3rd rate.
No timber.
Mountainous land on 79.80
cts.

From the cor of secs 25, 30, 31
and 36 as formed we run
north bt secs 25 and 30.

23.00 If of bench bears E and W.
Fall 35 lps west of old 1/4 sec
cor which is a sandstone
12 x 6 x 12 ins above ground
marked and witnessed as
described by the Surveyor
General.

41.65 Gully drains S.E.

49.00 Gully drains S.E.

58.50 Gully drains S.E.

80.20 Fall 56 lps west of old cor
of secs 19, 24, 25 and 30
which is a sandstone 9 x 3 x 10
ins above ground marked and
witnessed as described by the
Surveyor General.

The course of this line is
therefore $N 0^{\circ} 24' E$.

Land mountainous.

Soil sand and clay.

Brdrall.

No timber.

Mountainous land on 80.20 cts.

Sept. 18-1898. At this eve
we set ff 1.09' N on the lat
arc and at 0^h 00^m b.m.t.
observe the sun on the
meridian. The resulting
lat is 38° 0' 4" N.

Establishment of Green River Guide Meridian at Rds 15 and 16 E.
72° S.

From the cor of secs 19, 24, 25
and 30 as found or run
with lot secs 19 and 24
located.

33.00 Top of low ridge bears N.E. and
S.E. descended.

35.50 took bearings S.E. descended.

- 40.07 Fall 59 lbs west of old $\frac{1}{4}$ sec
cor which is a sand stone
 $6 \times 6 \times 10$ ins above ground
marked and witnessed as
described by the Surveyor
General.

The course of this $\frac{1}{4}$ mile is
therefore N. 30° E

Land mountainous.

Soil sand and clay.

2nd and 3rd rate.

No timber.

Mountainous land on 40.07 lots.

Sept 18-1898

No officer authorized to administer oaths other than myself being available without great inconvenience, delay and expense I administer the required preliminary oaths.

David H Blossom.

U.S. Dist Surveyor.

For general description see subdivisions of this town ship.

Alfred B Lewis.

David H Blossom.

U.S. Dist Surveyors.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS

LIST OF NAMES.

A list of the names of the individuals employed by _____
_____, United States Deputy Surveyor, to assist in running, measuring, and
ing the lines and corners described in the foregoing field notes of the survey of _____
ng the respective capacities in which they acted:

..., *Chairman.*

..., *Chairman.*

-, Moundman.

-, Moundman.

Axman.

Axman,

—, Flagman,

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted United States Deputy Surveyor, in surveying all parts or portions of the of the meridian of which are represented foregoing field notes as having been surveyed by him and under his direction; and that said survey were in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the monuments established, according to the instructions furnished by the United States Surveyor al for

,, Chairman.

, Chairman.

, Moundman,

Moundman.

J. L. Germann.

William Webb Chapman.

Subscribed and sworn to before me this

day of September, in the year 189



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR

United States Deputy Surveyor

I solemnly swear that, in pursuance of a contract received from
United States Surveyor General for _____, bearing date of the
day of _____, I have well, faithfully, and truly, in my own
proper person, and in strict conformity with the instructions furnished by the United States Surveyor
General for _____, the Manual of Surveying Instructions, and the laws of the
United States, surveyed all those parts or portions of the

territory in the _____, of _____ which are represented in the
foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly
swear that all the corners of said survey have been established and perpetuated in strict accordance with
the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General for _____, and in the specific manner described in the field notes, and that
the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer
the penalty of perjury under the provisions of an Act of Congress approved August 5, 1846.

United States Deputy Surveyor.

Signed and sworn to before me }
this _____ day of _____, 18____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Wall City, Illinoian, 1847

The foregoing field notes of the survey of the Green River Prairie, Waukegan
in Township 20 North between Range 15 & 16 East of the
Sixth East Prairie Division, Illinoian.

Frank D. Davis, David H. Brown
Under Surveyor No. 2219, dated December 12, 1847, having been
carefully examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Jacob H. Blaine
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys is
an exact copy of the original notes on file in this office.

United States Surveyor General.

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BOOK A-255

No. 3, P.

FIELD NOTES

OF THE SURVEY OF THE

*Green River Guide Meridian**through**Township 20 South**between**Ranges 15th and 16 East**of the Salt Lake Base and Meridian,**State of Utah*

AS SURVEYED BY

*Alfred Barnes and David Halvorsen, United States Deputy Surveyor,
Under this Contract No. 219, dated November 12th, 1897**Survey commenced September 20th, 1898**Survey completed September 20th, 1898*

6-161

*(high) m. on Mo-
y - Mundear 3 - 40 - 00 ✓*

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock

Chairman

F. W. Watt

Chairman

G. Morrison

Chairman

H. C. Montier

Chairman

F. W. Watt

Mountaineer

H. C. Montier

Observer

William L. Watt

Flag man

Volume

#

R0255

BOOK A-255

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Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

A. H. Rock
WE, *J. M. Mortenson*

and *F. W. Webb* and
H. C. Morten

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of *Green River Guide Meridian through T 20 S between ranges 15 and 16 East of the Salt Lake base and meridian Utah.*

A. H. Rock *F. W. Webb*, Chainman.

G. Mortenson, Chainman.
H. C. Morten

Subscribed and sworn to before me this 10th
day of September, 1898 }



I, F. W. Webb and —

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ^{me} to the best of ^{my} skill and ability, in the survey of *Green River Guide Meridian through T 20 S between ranges 15 and 16 East of the Salt Lake base and meridian Utah.*

F. W. Webb, Moundman.

, Moundman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



I, H. C. Morten and —

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ^{me} to the best of ^{my} skill and ability, in the survey of *Green River Guide Meridian through T 20 S between ranges 15 and 16 East of the Salt Lake base and meridian Utah.*

H. C. Morten, Axman.

, Axman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



I, William L. Webb

do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of *Green River Guide Meridian through T 20 S between ranges 15 and 16 East of the Salt Lake base and meridian Utah.*

William L. Webb, Flagman.

Subscribed and sworn to before me this 10th
day of September, 1898 }



David H. Blossom

U.S. Day

From River Guide Meridian through Tg 20 Sht Q, 15-716

Survey commenced Sept 30. 1898
and executed with a 10 and L.E.
Burley light mountain transit
with solar attachment for
a description of which see
book "A."

Sept 30, 1898: At the $\frac{1}{4}$ sec cor
bt sees 19 and 24 therefore de-
scribed or set off $39^{\circ}04' N$ on
the lat arc $0^{\circ}58' N$ on the decl
are and at 8:00 a.m. l.m.t.
determine a true meridian
with the solar.

Thence we run:

North bt sees 18 and 24.

Since abrupt breaks com-
mence at 10 chs north of $\frac{1}{4}$ sec
cor making it impossible to
chain, we triangulate as
follows.

From $\frac{1}{4}$ sec cor above described
we set a flag on line due
north of cor, then measure
a base line East 40.00 chs
to a point whence the flag
bears $N 51^{\circ}29' W$; from the flag
the East end of the base bears
 $S 51^{\circ}29' E$.

Difference bt measurements
of 40.00 chs by two sets of chain-
men, is 10 chs; position of
middle point,

By 1st set 39.95 chs

By 2nd set 40.05 chs; the mean
of which is 40.00 chs which dist
was used for a base line.

The required dist to flag is
therefore. tang $38^{\circ}31' \times$ base or
 $.7959 \times 40$ chs = 31.84 chs.

On steep East slope of blue
clay point.

Green River Guide Meridian, through 7th 30^s but RS 15^e and 16^e

Chain north from flag 8.16 chs.
difference in measurement
of 8.16 chs by two sets of chain-
men is 2 lbs; position of
middle point,

By 1st set 8.15 chs.

By 2nd set 8.17 chs; the mean
of which is 8.16 chs.

8.16 chs + 31.84 chs miles

- 40.00 the steep east slope about
2.00 chs east of foot of ledge
75 ft high.

Set a sand stone 30x14x10 ins
15 ins in the ground for cor. of
secs. 13, 18, 18 and 24 marked
with 3 stakes on N and S edge
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high west of
cor. Pits impracticable.
Level around arias.

Soil clay, 4 th rate.

No timber.

Mountainous land over 40.00 chs.

North but secs 13 and 18.

Dried along steep east slope.

19.00 Head of gulch drains N.E. Foot of
steep descent. Enters broken hills.

31.00 Wash drains East accord.

33.75 Top of spur slopes west. Dried.

37.00 Small wash drains N.E.

Difference bet. measurements of
40.00 chs by two sets of chainmen
is 20 lbs: position of middle
point.

By 1st set 39.90 chs

By 2nd set 40.10 chs; the
of which is

40.00 Set a sand stone 18x12x6 ins
12 ins in the ground for 1/2 sec

Rise Greek Meridian, through D 20 S but R's 15 and 16

etc; marked $\frac{1}{4}$ acre or fence and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high to of cor.
Pits impracticable.

Dense over broken hills.

52.25 Wash draws south east. Ascend.

7 of 6 beach bars E and W.
Descend.

Wash draws. S.E. Ascend.

Difference bet measurements
of 80.00 chs by two sets of chain-
men is 30 chs.: position of
middle point,

By 1st set 80.15 chs.

By 2nd set 79.85 chs. The mean
of which is

Point about 10.00 chs S.E. of
large dome shaped rock.
Set a sand stone $18 \times 12 \times 4$ in
12 ins in the ground for cor
of secs 7, 12, 13 and 18; marked
with 2 notches on N and 4
notches on S edges and raised
a mound of stones 2 ft base
 $1\frac{1}{2}$ ft high to of cor.
Pits impracticable

Land mountainous.

Soil clay and gravel.

3rd and 4th route.

No timber.

Mountainous land on 80.00 chs.

Sept 20 1898. At this cor
is set off $0^{\circ} 53' N$ on the decl
are and at 0400 m. l.m. G.
observe the sun on the
meridians. The resulting
lat is $39^{\circ} 0' 6'' N$.

North bet secs 7 and 12.
Ascend.

near River Grand Meridian, through T. 20 S. but Rds 15 and 16

13.00	Top of ridge bears E and W. descend.
16.00	Wash drains east. Ascend.
27.00	Top of knoll bears E and W.
28.50	Wash drains east.
37.07	Small ridge bears E and W.
37.80	Gully drains west. called. difference bet measurements of 4000 chs by two sets of chain- men is 16 chs; position of middle point.
	By 1st set 39.92 chs.
	By 2nd set 40.08 chs the mean of which is
40.00	Set a sand stone 18x9x7 ins 12 ins in the ground for 1/4 sec con marked 1/4 on N face and raised a mound of stone 2 ft base 1 1/2 ft high on con Pits impossible.
	Ascend.
42.68	Top of bench E and W. ascend gradually.
	Difference bet measurements of 77.25 chs by two sets of chainmen is 32 chs. position of middle point,
	By 1st set 77.36 chs.
	By 2nd set 77.14 chs the mean of which is
77.20	Foot of abrupt ledge 200 ft high. Con of secs 1, 6, 7 and 12 falls in ledge and can not be set, therefore at this point we set a sand stone 18x13x4 ins 12 ins in mound of rock, (impossible to dig on account of rocks) for a witness con to con of secs 1, 6, 7 and 12 is marked N.C. on N.E. face with 1 notch on N and 5 notches

River Guide Meridian through 72 308 lot R 15 and

80.00

on ledges and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
~~to of cor.~~ Poles impactive at top
~~imposters & set on~~ of nos 10, 7 and 12 on account of ledge.
Land mountainous.
Soil clay and gravel.
3rd and 4th rock.
No timber.
Mountainous land on 80.00 ch.

With lot secs 1 and 6.

Since it is impossible to chain
both from above described
mounds we will proceed as
follows in order to determine
dist to top of ledges.

We go to a point 42.68 chs
north of cor of lots 7, 12, 13 and 18
From this cor we set a flag
 $N 2^{\circ} 07' E$ on top of ledge then
measure a base line
East 40.00 chs to a point
where the flag bears $N 39^{\circ} 20' E$
From the flag the East end
of the base bears $839^{\circ} 20' E$
difference between measure-
ments of 40.00 chs by two
sets of chainmen is 10 chs;
position of middle point
By 1st set 39.95 chs.

By 2nd set 40.05 chs the
mean of which is 40.00 chs.
which dist was used for a
base line.

The angles taken in order
of measurement are re-
spectively. $87^{\circ} 5' 3''$, $50^{\circ} 40'$ and
 $41^{\circ} 27'$ their sum being
 $180'$. In order to compute
dist we proceed as follows.

Leave River Guide Meridian, through $7^{\circ} 20' S$ lat 15° and

$$\begin{aligned}\log \sin 50^{\circ} 40' &= 9.888444 \\ \log .40 &= \underline{1.602060} \\ &\quad 11.490504\end{aligned}$$

$$\begin{aligned}\log \sin 41^{\circ} 27' &= \underline{9.820836} \\ \log \text{ required side} &= 1.669668\end{aligned}$$

$$\begin{aligned}\log \cos 2^{\circ} 07' &= \underline{9.999704} \\ \log \text{ of northings} &= 11.668372\end{aligned}$$

$$1.669668$$

$$\log \sin 2^{\circ} 07' = \underline{8.567431}$$

$$\log \text{ of easting} = 10.237099$$

Therefore the flag is 46.71 chs
north and 1.73 chs east of
triangulation point

$$42.68 \text{ chs} + 46.71 \text{ chs} = 89.39 \text{ chs.}$$

89.39 chs - 80.00 chs makes
dist^{with} from true cor point
on cor of secs 1, 6, 7 and 12 to
top of ledge bears 2 and 6.

From flag we run north
4.07 chs according.

4.07 chs + 8.39 chs makes

top of ridge bears 2 and 6.
From this point we run
west 1.73 chs and set a
flag on true line bet secs
1 and 6.

There is no difference bet
measurements of 4.07 chs and
1.73 chs by two sets of
Chainsmen.

Since it is impossible, on
account of precipitous slide
rock sloping north, to chain
further we triangulate as
follows.

Set a flag on true line
at foot of mountain -
and leave flag as
above 13.46 chs with of cor
point for cor of secs 1, 6, 7 and

9.39

13.46

on River Guide Meridian, through Tg 20 S but Rr 15 and 16

We then proceed to second flag and measure a base line N $70^{\circ} 59' 42''$ 10.00 chs to a point whence flag on ridge bears S $18^{\circ} 30' E$. From the flag west end of base bears N $18^{\circ} 30' W$. Difference bet measurements of 10 chs by two sets of chainmen is 2 chs; position of middle point.

By 1st set 9.99 chs

By 2nd set 10.01 chs the mean of which is 10.00 chs which dist was used for base line it being impossible to obtain longer base on account of ledges.

The angles taken in order of measurement are respectively $108^{\circ} 01'$, $52^{\circ} 28'$ and $18^{\circ} 30'$ their sum being 180° . To determine dist we proceed as follows.

$$\log \sin 52^{\circ} 28' = 9.899370$$

$$\log 10 = \frac{1.000000}{10.899370}$$

$$\log \sin 18^{\circ} 30' = \underline{9.501476}$$

$$\log \text{required dist.} = 1.397854$$

Therefore required dist is 25.00 chs.

13.46 chs + 25 chs makes

In bottom of canyon obtains 85 then N.E.

There with 1.54 chs assembly.

No difference in measurement of 1.54 chs by two sets of chain men.

38.46 + 1.54 chs makes

Set a - and stoned 18 x 6 x 4 ins

12 ins in the ground for

$\frac{1}{4}$ sec eve marked $\frac{1}{4}$ ins

in face and raised a mound.

38.46

4.000

on River Grade Meridian, through Tg 20 S, bet R's 15 and 16

of stone 2 ft base $1\frac{1}{2}$ ft high
or of cor. It's impracticable
since it is impossible on
account of precipitous cliffs
to chain north we run an
offset line in sec 6 as follows.
From a point 55-chs south
of $\frac{1}{4}$ sec cor above described we
run $S 55^{\circ} E$, 4.00 chs, thence
 $N 52^{\circ} 48' E$ 4.69 chs, thence $N 88^{\circ} 38'$
10.66 chs. thence $N 38^{\circ} E$ 3.00 chs,
thence $N 45^{\circ} E$ 10.70 chs, thence
 $N 11^{\circ} 30' E$ 14.00 chs, thence north
10.65 chs, thence west 35.53 chs
to a point 40.00 chs north of $\frac{1}{4}$
sec cor bet secs 1 and 6.

At this point we set a
sand stone $20 \times 12 \times 6$ ins 15 in
in mound of rock, (impossible
to dig on account of rocks)
for a tiny cor of 9 ps 19 and
20 S R's 15 and 16 E marked
19 S on NE, 16 E on SE, 20 S
on S.W. and 15 E on N.E. faces
with 6 notches on each edge
and raised a mound of stone
2 ft. base $1\frac{1}{2}$ ft high 3 of cor.
It's impracticable.

Land mountainous.

Soil rocky, 4th rate.

No timber.

Mountainous land on 80.00 chs.
Note: The above distances are
measured distances as chained
by two sets of chainmen.

The above cor was established
as permanent cor to the 19 and
20 S R's 15 and 16 E Sept. 22, 1898
in the "Survey of North Boundary
of the Township". See book D
Sept 20th 1898.

Green River Guide Muskrat, through T. J. 205 W. R. 152.

No officer authorized to administer oaths other than myself being available without great inconvenience, delay and expense I administer the required preliminary and final oaths.

David H. Blossom.
U.S. Army Surveyor.

For general description see subdivisions of this river strip.

Alfred B. Lewis.
David H. Blossom.
U.S. Army Surveyors.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of Green River
Guide Meridian through T of 20 S between ranges 15 and 16 E,
of the Salt Lake Base and meridian, Utah.
showing the respective capacities in which they acted:

A. H. Pack F. W. Webb, Chainman.

G. Mortimer H. C. Mortier, Chainman.

F. W. Webb, Moundman.

, Moundman.

H. C. Mortier, Axman.

, Axman.

William L. West, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, in surveying all
those parts or portions of the Green River Guide Meridian
through T of 20 S between ranges 15 and 16 E,

of the Salt
Lake Base and State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor

General for

A. H. Pack F. W. Webb, Chainman.

G. Mortimer H. C. Mortier, Chainman.

F. W. Webb, Moundman.

, Moundman.

H. C. Mortier, Axman.

, Axman.

William L. West, Flagman.

Subscribed and sworn to before me this 20th

day of September, 1898 }

○○○○○
○ SEAL ○
○○○○○

David H Blossom

U.S. Dep. Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____
of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189_____. }

○○○○○
○ SEAL ○
○○○○○

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah Oct 1st 1899
The Green River Meridian
20 South between R's 15 & 16 E of the Salt Lake Base
Meridian, Utah.

executed by _____ *Clyde W. Lewis & David A. Brown*
under his contract No. *219*, dated *November 12th*, 189_____, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob T. B. Blair
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-255

R.B.B.

FIELD NOTES

OF THE SURVEY OF THE

East and North BoundaryofTownship 20 South, Range 16 East.Of the Salt Lake Base and Meridian,
State of Utah

AS SURVEYED BY

Alfred B. Lewis and David H. Blawie, United States Deputy Surveyor,
Under his Contract No. 219, dated November 12th, 1897Survey commenced September 21st, 1898Survey completed September 22nd, 1898

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	m. obs obs -
E. Riddle higher	1-40-00 ✓
" " lower	1-03-72 ✓
N " higher	3-77-72 ✓

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock.

Chairman

G. Mortenson.

Chairman

F. W. Wett.

Chairman

F. W. Wett.

Chairman

William L. Wett

Flagman

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PRELIMINARY OATHS OF ASSISTANTS.

We, A. H. Rock

and G. Mortenson

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of North and East boundary of T 20 S R 16 East and the East and west boundary of T 21 S R 20 East of the Salt Lake Base and Meridian Utah.

A. H. Rock

, Chainman.

G. Mortenson

, Chainman.

Subscribed and sworn to before me this 10th
day of September, 1898



I, P. W. Webb

and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ^{me}, to the best of ^{my} skill and ability, in the survey of North and East boundary of T 20 S R 16 East and the East and west boundary of T 21 S R 20 East of the Salt Lake Base and Meridian Utah.

P. W. Webb

, Moundman.

Subscribed and sworn to before me this 10th
day of September, 1898



I, F. W. Webb

and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ^{me}, to the best of ^{my} skill and ability, in the survey of North and East boundary of T 20 S R 16 East and the East and west boundary of T 21 S R 20 East of the Salt Lake Base and Meridian Utah.

F. W. Webb

, Axman.

Subscribed and sworn to before me this 10th
day of September, 1898



I, William L. Webb

, do solemnly swear that I will well and truly

perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of North and East boundary of T 20 S R 16 East and the East and west boundary of T 21 S R 20 East of the Salt Lake Base and Meridian Utah.

William L. Webb

, Flagman.

Subscribed and sworn to before me this 10th
day of September, 1898



I, David H. Blawson

, U.S. Surveyor

East boundary of Twp 30 S 16 E.

Survey commenced Sept 21, 1898
and executed with a T and L.E.
Gulley light mountain transit
with solar attachment for
a description of which see
book A

Sept 21, 1898: At 8:40 a.m. b.s.t.
we set off $39^{\circ} 0' 2'' N$ on the lat arc
 $0^{\circ} 34' 1'' N$ on the decl arc and
determine a true meridian
with the solar at the cor of
Twp 30 and sec 21 S, R.S. 16 and
17 E., heretofore described.
Hence we run north on
East boundary of township.
Set secs 31 and 34.
Ascend gradually.

40.00 Gully drains westerly.
Knowing from previous
retracement of south boundary
of Twp 30 that the total southing
of said body is 3.72 chs, and
that a sectional correction
line will be necessary to
continue our line north throw-
ing fractional dist in south-
the half mile.

43.72 Set a sand stone 18x8x8 in
12 in in the ground for 1/4
sec cor marked 1/4 on its
face; dug pits - 18x18x12
in N and S of stone and
raised a mound of earth
3 1/2 ft base 1 1/2 ft high on 1/4
cor.

Ascend gradually.

83.72 Set a sand stone 18x12x8 in
12 in in the ground for
cor of sec 25, 30, 31 and 36,
marked with 5 notches
on N and 1 notch on S edges

East boundary of T 30 S & R 16 E.

and raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high w of cor;
Pits impracticable.
Sand rolling.
Soil sandy.
2nd and 3rd rate
so timber.
Rolling land on 83.72 chs.

	North N.E. sec 25 and 30.
7.00	wash drains S.W.
	Three over rolling hills.
27.20	wash drains S.W.
35.00	Low rock ridge bears N.E. and S.W.
40.00	In rock hollow drains S.W. Set a sandstone 24x10x6 ins 18 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on its face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high w of cor. Pits impracticable. Second.
48.00	E of rock spur slopes S.W. Second.
52.00	Head of rock wash drains W.
	Foot of abrupt ascent
64.50	Foot of ledge >5-ft high on end of spur slopes S.W. Since it is impossible to chain further we run on our offset in sec 25 as follows around end of spur start 15.00 chs, thence north 15.20 chs thence East 15.00 chs to a point 40.00 chs north of $\frac{1}{4}$ sec cor at sec 25 and 30. Point falls on east side of head of ditch drains north on south side of spur above mentioned.

East boundary of T 20 S R 16 E.

80.00	Set a sandstone 18 x 16 x 6 ins 12 ins in mound of rock, (im- possible to dig on account of rocks) for cor of secs 18, 24, 25- and 30; marked with 4 notches on N and 2 notches on S edge and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high in of cor. It is impracticable. Land mountainous. Soil sandy and rocky. 3rd and 4th rate. No timber. Mountainous land on 8,000 ft. Sept 21 - 1885: At 0400 m. in sky overcast, impossible to take lat observation.
9.00	N bit secs 18 and 24. Descend over steep slide rock. Foot of steep descent. Cross small flat.
14.00	ascend abruptly up slide rock.
22.20	Foot of ledges 100 ft high in, possible to climb further. Point falls on top of large flat boulder which we mark with a (+) for a witness cor to $\frac{1}{4}$ sec cor; marked w.c. $\frac{1}{4}$ in of cross and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high in of cor. It is impracticable. It is impossible on account of precipitous "Rock cliffs" to survey further north, therefore we abandon line at this point.
-40.00	Impossible to set $\frac{1}{4}$ sec cor on account of precipitous "Rock cliffs" Land mountainous Soil rocky 4 th rate

East boundary of 920^s or 16 L.

No timber

mountainous land over 4000'

Sept 21 - 1888.

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North boundary of T 20 S R 16 E.

Sept. 22, 1898; - at 8.40 a.m.
 Compt. we set off $39^{\circ}07'$ on the
 lat arc $0^{\circ}11'N$ on the decl. arc
 and determine a true meridian
 with the solar at the time
 cor to Tps 19 and 20 S, R's
 15 and 16 E set Sept 20 1898.
 Knowing from the survey of
 the E half of the T that the cor
 of Tps 19 and 20 S R's 16 and 17
 E can not be set we establish
 true cor of Tps 19 and 20 S R's
 15 and 16 E as a permanent
 cor from which we run
 East on a true line bet secs
 6 and 31.

Descend over slick rock.

- | | |
|--------|---|
| 3.15- | Top of ledge bears N and S oriented. |
| 7.20 | Head of gulch drains N.E. Ascend. |
| 11.25- | North side of spur slopes N
descend. |
| 32.00 | Ward bottom of main canon
drains S.E. ascend. |
| 37.72 | Allowing for convergency .59 ft.
and departure of guide meridian
as retraced 1.69 ft.
Set a sand stone 15x8x4 ins
12 ins in the ground for
true cor marked 1/4 on N
face and raised a mound
of stone 2 ft base 1 1/2 ft high
N of cor. Rely impracticable.
Thence over numerous rock
points and small gullies about
6 hrs south of abrupt cliffs
bearing E and W. |
| 77.72 | Set a sand stone 15x10x5 ins
10 ins in the ground for cor of
secs 5, 6, 31 and 32 marked with
5 notches on E and 1 notch on
W edges and raised a mound. |

With boundary of T 30 S R 16 E.

of stone 2 ft base $1\frac{1}{2}$ ft high
west of cor. Pits impracticable.
cor falls on top of ledge faces
south.

Land mountainous.

Soil rocky. 40% rock.
no timber.

mountainous land on 97.72

East - lot secs 5 and 32.

4.00 Ground,

12.50 Canyon wash drains from
N. W. to South.

Dence along south slope
about 6.00 chs from ledge.

39.25 Rock gully drains south.

40.00 Set a sand stone 16x10x9 ins
11 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone 2 ft
base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.

Since there are impassable
ledges 12.00 chs east or run
on offset line as follows
in sec 5. From $\frac{1}{4}$ sec cor
South 15.00 chs, thence East
40.00 chs, thence North 15.00 chs
to a point 40.00 chs east of $\frac{1}{4}$ sec
cor lot secs 5 and 32.

- 8.000 East - of rock spur slopes
south.

Set a sand stone 18x10x8 ins
12 ins in the ground for cor of
secs 4, 5, 32 and 33 marked with
4 notches on E and 2 notches
on W edges and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
W of cor. Pits impracticable.
Land mountainous.

North boundaries of T. 20 S R 16 E.

soil rocky, 4th rate.
No timber.

MOUNTAINOUS land on 8000 chs.
Sept 22, 1888. At this corner
set off $0^{\circ} 06' N$ on the dead arc and
at 0400 m. L. M. T. observe the
sun on the meridian.
The resulting lat is $39^{\circ} 07' N$.

East bet secs 4 and 33.

descend abruptly.

12.00 Post of perpendicular ledges.
descend abruptly.

40.00 Set a sand stone 10x8x6 ins
11 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor
Rts impracticable.

75.00 Edge of cliff bears S.E. and N.W.
descend abruptly.

- 80.00 In slide rock sloping N.E.
Set a sand stone 10x12x8 ins
12 ins in crevices of rock
(impossible to dig on
account of rocks) for cor
of secs 3, $\frac{3}{4}$, 33 and 34 marked
with 3 notches on E and W
edge and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
W of cor. Rts impracticable.
Land mountainous.

Soil rocky, 4th rate.

No timber.

MOUNTAINOUS land on 8000 chs.

East bet secs 3 and 34,
descend abruptly over slide
rock.

With boundary of T20 S R 16 E.

16.35 Right bank of Green River.
Set a sand stone 18x10x8 ins
12 ins in mound of stone (im-
possible to dig on account
of rocks) for remainder cov
of gravel see 3 and 34; marked
N.C. on E face and raised
a mound of stone 2 ft base
 $1\frac{1}{2}$ ft high E of cov. Rigs
impracticable.

To determine dist across river
we set a flag no 2 on line on
left bank and leave flag
no 1 at number cov on right
bank. we then proceed to
flag no 2 and measure a
base line south 15.00 chs
to a point whence flag no 1
bears N $52^{\circ}14'$ W; from the flag
the south end of the base bears
S $52^{\circ}14'E$.

Note:- It was impossible on
account of river and bluffs
to obtain longer base.

The required dist is therefore
base $52^{\circ}14' \times$ base or 1.29074
 $\times 15 = 19.36$ chs.

19.36 chs + 16.35 chs makes

35.71 Left bank of Green River.
Link crosses small island.
Set a sand stone 18x10x8 ins
12 ins in the ground for
remainder cov of gravel sees
3 and 34; marked N.C. on
E face and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
E of cov. Rigs impracticable.
Enters thick brush.

37.00 Leave brush. Ground

40.00 Set a sand stone 16x8x4 ins
11 ins in the ground for 1/4 see
cov marked 1/4 on N face and

North boundary of T 20 S & 16 E.

raised a mound of stone
2 ft base $1\frac{1}{2}$ ft. high N of cor.
Ris impracticable.

48.00 Rock drains S. W. ascend
gradually.

53.00 Ascend abruptly by slate rock.

71.00 Top of steep spur slopes
north, & hence along
steep north slope under
ledges.

- 80.00 At the exact cor point we
mark a (+) on flat top
of sandstone boulders, for
cor of sec 2, 3, 34 and 35—
with 2 notches 5 and 4
notches to 2 corers and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high to
of cor. Ris impracticable.
Land mountainous.
Soil rocky. 40% rock.
No timber.

Mountainous land on
8000 chs.

It is impossible to survey
further east on account
of precipitous and im-
passable Book cliffs
200 ft high.

Note—This being the only
township boundary on which
F. W. Webb and William
L. Webb were employed
we obtain final oath.

Sept 22 1898

No officer authorized to administer
oaths other than myself being available
without great inconvenience, expense and
delay I administer the required preliminary
and final oaths.

David H. Blascom
U.S. Dist Surveyor.

North Boundary of T20 S R16 E.

Latitudes, Departures and Closing Errors.

Line Designated	True Bearin	Dist	Latitudes		Departures	
			N	S	E	W
S Bdy SEC 31	$S 89^{\circ}47'E$	80.53			.30	80.53
S " " 32	$S 89^{\circ}30'E$	80.41			.70	80.40
S " " 33	$S 89^{\circ}32'E$	79.95			.65	79.95
S " " 34	$S 89^{\circ}30'E$	80.18			.70	80.18
S " " 35	$S 89^{\circ}27'E$	79.80			.76	79.90
S " " 36	$89^{\circ}35'E$	79.78			.58	79.7
E Bdy 208R16	North	63.72	163.7			
N " S C 26	West	79.95				79.95
E " " 23	$N 0^{\circ}01'W$	80.00	80.00			.02
N " " 23	West	80.00				80.00
E " " 15	$N 0^{\circ}01'W$	80.00	80.00			.03
E " " 10	$N 0^{\circ}01'W$	80.00	80.00			.03
E " " 3	$N 0^{\circ}01$	80.00	80.00			.02
N Bdy T20S R16	West	377.72				77.72
W Bdy 208R16 Green River G.M.	South	280.00			280.00	
W Bdy SEC 19	$S 0^{\circ}50'$	40.07			40.07	.58
" " " 30	$S 0^{\circ}24'$	80.20			80.20	.06
" " " 31	$S 0^{\circ}23'W$	79.80			79.80	.54
Convergency						.59
			83.72	483.86	80.74	80.04
					483.72	480.04
Error in Lat					.14	.70
						error in ap

For general description see subdivisions of this township.

Alfred B Lewis
David H Tolvaon
U.S. Day Surveyors

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of East and North boundary of Township 20 South, range 16 East of the Salt Lake Meridian, Utah. showing the respective capacities in which they acted:

....., Chairman.
....., Chairman.
....., Moundman.
F. W. Webb....., Moundman.
F. W. Webb....., Axman.
....., Axman.
William L Webb....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blossom, United States Deputy Surveyor, in surveying all those parts or portions of the East and North boundary of Township 20 South, range 16 East

....., of the Salt Lake Base and Meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

....., Chairman.
J. W. Webb....., Chairman.
....., Moundman.
J. W. Webb....., Axman.
....., Axman.
William L Webb....., Flagman.

Subscribed and sworn to before me this 22
day of September, 1898 }.



David H Blossom
U. S. Depy Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for bearing date of the day of, 189 ..., I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

..... of the meridian, in the of which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said and sworn to before me }
this, day of, 189 }

cccccc
S STATE
cccccc

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Utah date Oct. 1st, 1897
The foregoing field notes of the survey of the East Bank boundaries of
the township 20 of the Range 16 East of the Salt Lake Meridian
of Mexican Flat

Received by *C. F. C. Deering & David A. Blaylock*
under Contract No. 219, dated *October 12th, 1897*, having been
carefully examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob B. Blair
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.

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BOOK A-255

R.D.B.

FIELD NOTES

OF THE SURVEY OF THE

*Meanders and Subdivisions**of**Township 20 South, Range 16 East**of the Salt Lake Base and Meridian,
State of Utah*

AS SURVEYED BY

*Frederick Lewis and David Hobson, United States Deputy Surveyor,
Under their Contract No. 219, dated November 12th, 1897
Survey commenced September 23rd, 1898
Survey completed October 5th, 1898*

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Decks	high	31-45-37'	36-25
	low	10-48-92'	
Meanders	high	11-16-17'	0
	low	1-18-70'	

Architect high	4-75-37'
l.o.s.	4-41-65'

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock

Chairman

G. Mortenson

Chairman

F. W. Matt

Mountaineer

F. W. Matt

Axeman

William L. Matt

Flagman

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Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We, A. H. Rock.

and *G. Mortenson.*

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of *The Subdivision lines of T20S.R16E. T22S.R16E. T23S.R16E. T21S.R20E and Meander lines in T20S.R16E. T22S.R16E. T23S.R16E of the Salt Lake Base and Meridian, Utah.*

A. H. Rock

, Chainman.

G. Mortenson

, Chainman.

Subscribed and sworn to before me this *10th*

day of *September*, 1898



David Holzhausen.

U.S. Ass't Surveyor.

We, F. W. Webb

and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of *The subdivision lines of T20S.R16E, T22S.R16E, T23S.R16E, T21S.R20 and Meander lines in T20S.R16E, T22S.R16E, T23S.R16E of the Salt Lake Base and Meridian, Utah.*

J. W. Webb

, Moundman.

, Moundman.

Subscribed and sworn to before me this *10th*

day of *September*, 1898



David Holzhausen.

U.S. Ass't Surveyor.

We, F. W. Webb

and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of *The subdivision lines of T20S.R16E, T22S.R16E, T23S.R16E, T21S.R20 and Meander lines in T20S.R16E, T22S.R16E, T23S.R16E of the Salt Lake Base and Meridian, Utah.*

J. W. Webb

, Axman.

, Axman.

Subscribed and sworn to before me this *10th*

day of *September*, 1898



David Holzhausen.

U.S. Ass't Surveyor.

I, William L. Webb

, do solemnly swear that I will well and truly

perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of *The subdivision lines of T20S.R16E, T22S.R16E, T23S.R16E, T21S.R20 and Meander lines in T20S.R16E, T22S.R16E, T23S.R16E of the Salt Lake Base and Meridian, Utah.*

William L. Webb

, Flagman.

Subscribed and sworn to before me this *10th*

day of *September*, 1898



David Holzhausen.

U.S. Ass't Surveyor.

Subdivisions of 9^o 20' S of 16^oE.

Survey commenced Sept 23-1898.
and executed with a tr. and L.E.
Gurley light mountain transit
with solar attachment. The
horizontal limb is provided
with two double verniers placed
opposite to each other, reading
to single minutes of arc,
which is also the least count
of the verniers of the latitude
and declination arcs.

The instrument was examined
tested on the true meridian at
Salt Lake City, found correct, and
was approved by the Surveyor
General for Utah Sept 1-1898.
We examine the adjustments
of the transit and correct the
level and collimation errors,
then to test the solar apparatus
by comparing its indications
resulting from solar ob-
servations made during a.m.
and p.m. hours, with a
true meridian determined
by observations on Polaris
we proceed as follows.

At the cor. of secs 25; 30, 31
and 36 on the E bdy. of the
D. of herebefore described;
in lat $39^{\circ}03'N$; longitude
 $110^{\circ}06'm$; we set off $39^{\circ}03'N$
on the lat arc; $0^{\circ}28'S$ on the
decl arc and at 4^h 00^m p.m. mt.
determine with the solar a
true meridian and mark a
point thereof on a stone
firmly set in the ground
 5.00 fms N of the cor.

At 7^h, 15^m p.m. l.m.t. we
observe Polaris at eastern

Subdivisions of 9208 or 16 E.

elongation, in accordance with
Manual of Instructions, and mark
a point in the line thus de-
termined, on a plug driven
in the ground 5.00 mts N of our
station.

Sept 23-1888

Sept 24, 1888. At 7:00 a.m.,
l.m.t. we lay off the azimuth
of Polaris $1^{\circ} 36.5'$ to the west and
mark the true meridian thus
determined by cutting a small
groove in the stone set Sept
23-1888, on which the true
meridian falls 0.3 in west
of the mark determined by
the solar.

At 8:400— a.m. l.m.t. we
set off $39^{\circ} 03' N$ on the lat arc;
 $0^{\circ} 36'S$ on the decl arc and
mark a point in the true
meridian determined with
the solar, by a cross on the
stone already set 5 mts N of
our station; This mark falls
0.3 in east of the true meridian
established by the Polaris
observation.

The solar apparatus by p.m.
and a.m. observations
defines position for true mer-
idian respectively about
 $0' 16''$ east and $0' 16''$ west of
the meridian established
by the Polaris observations;
Therefore we conclude that
the adjustments of the in-
strument are satisfactory.

The magnetic testing

Subdivisions of Towns 816 E.

of the true meridian at 8:30 a.m. L.M.T. is N 16° 03' m; the angle thus determined, reduced by the table page 100 gives the mean true decl 16° E.

Knowing from the retracement of the 4th Standard Parallel south that a sectional correction line is necessary we commenced at the cor of secs 25, 30, 31 and 36 already described and run west on a true line bet secs 25 and 36.

Dressed gradually.

Small marsh drains 8.40.

Ground over rolling sandy hills.

40.00 Set a sandstone 16 x 16 x 4 ins 11 ins in the ground for cor marked $\frac{1}{4}$ on N face, dug pits 18 x 18 x 12 ins E and W of stone 3 ft slit and raised a mound of earth $3\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft high N of cor.

Hollow drains N.E.

Set a sandstone 16 x 6 x 6 ins 11 ins in the ground for cor of secs 25, 26, 35 and 36 marked with 1 notch on S and E edges; dug pits 18 x 18 x 12 ins in each sec $5\frac{1}{2}$ ft slit; and raised a mound of earth 4 ft base 2 ft high in of cor.

Land rolling.

Soil sandy.

2nd and 3rd rate.

No timber.

Rolling land on 8.000 chs.

12.04

67.04

80.00

Subdivisions of 9th S or 16 E.

- West on a true line bet sees 26 and 35.
Low rolling sand hills.
Gentle slope toward river.
4.000 Set a sand stone 18 x 14 x 4 ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ mi N face; dug pits 18 x 18 x 12 ins
2 and $\frac{1}{2}$ ft of stone 3 ft dist
raised a mound of earth
3 $\frac{1}{2}$ ft high, $1\frac{1}{2}$ ft high
N of cor.
Set a sand stone 20 x 10 x 6
15 ins in the ground for cor
of sees 26, 27, 34 and 35 marked
with 1 notch on S and 2 notches
on E edges, and raised a
mound of stone 2 ft high
 $1\frac{1}{2}$ ft high west of cor.
Pits impracticable.
Level rolling.
Soil sandy.
2nd and $\frac{3}{4}$ rd rate.
No timber.
Rolling land on 8.000 chs.
At this cor we set off $0^{\circ}41'$'s
on the decl arc and at 0.000
l.m.t. observe the sun on
the meridian. The resulting
lat is $39^{\circ}03'N$.

-
- West on a true line bet
sees 27 and 34.
As usual, over rolling sand hills.
Foot of sand ridge bears N.E.
and S.W.
Set a sand stone 18 x 18 x 8 ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ mi N face: dug
pits: 18 x 18 x 12 ins E and W of

Subdivisions of T 20 S R 16 E.

stone 3 ft dirt and raised a mound of earth $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft high N of cor.

ascend.

45.87 Top of sand ridge bears N.E. and S.W. drain.

54.00 Hollow drains north. ascend.
60.80 Top of knoll. descend gradually.
77.63 Small marsh drains west.
ascend.

80.00 Set a small stone $18 \times 12 \times 5$ ins
 12 ins in the ground for cor
I see 27, 28, 33 and 34 marked
with 1 notch on S and 3 notches
on E edges; dug pits $18 \times 18 \times 12$
ins in each all $5\frac{1}{2}$ ft dirt
and raised a mound of earth
4 ft base 2 ft high N of cor.
Land mountainous.

Soil sandy,

2nd and 3rd rate.

No timber.

mountainous land on 80.00 acs.

rest on a true line but sees
28 and 33.

104.0 Marsh drains N.W.

133.5 Small marsh drains N.W.

25.80 Gully drains N.W. ascend.

Top of low clay ridge.

descend.

4.000 Set a small stone $18 \times 10 \times 4$ ins
 12 ins in the ground for 1/4 sec
cor marked 1/4 on N face; dug
pits $18 \times 18 \times 12$ ins E and W of
stone. and raised a mound
of earth $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft high
N of cor.

40.30 Marsh drains north.
tracing over hills and hollows

Subdivision of T 20 S or 16 E.

	draining to the south.
60.00	T of clay bluffs, base N and S. Dried out.
68.00	Foot of bluffs.
75.77	County road bars N and S.
76.05	Fence bars S and N. m.
-	Enters thick chick brush.
80.00	Set a sand stone 14x10x10 ins 10 ins in the ground for cor of sees 28, 29, 32 and 33 marked with 1 notch on S and 4 notches on E edges; clay pits 15x15x12 ins in each see 5 1/2 ft deep and raised a mound of earth 4 ft base 2 ft high w of cor land mountainous. Soil sand and clay. 2nd and 3rd rate. No timber. Mountainous land or land covered with dense under- growth or 80.00 chs.

	West on a tree line bt sees 29 and 32.
	Clear flat covered with chick brush.
1080	Fence bars N and S.
12.00	Leave brush enter orchard. owned by Chas Myres.
17.30	Irrigation ditch 3 ft wide flows south. leave orchard. Enter cottonwood timber.
23.65	Left bank of Green River. Set a cotton wood post 3 ft long 4" square 24 ins in the ground for meander cor of fence sees 28 and 32 marked N.C. on E; T 20 S on E, R 16 E S 29 on N and S 32 on S fences; from which

Subdivisions of T 20 S or 16 E.

A cottonwood 24" diam. bears
N $21^{\circ}30'$ E. 67 lbs dist marked

T 20 S R 16 E S 29 M.C. 13?

A cottonwood 24" diam. bears
S $3^{\circ}30'$ W., 24 lbs dist marked.

T 20 S or 16 E S 32 M.C. 13?

From this meander cor. the flag
previously set on right bank
of river bears S $78^{\circ}13'$ W.

To determine dist across river
we proceed as follows.

Leave flag at meander cor. and
proceed to flag previously set
on right bank of river from
which we measure a base
line N $11^{\circ}47'$ W 10.00 chs to
a point where the flag on
meander cor bears S $51^{\circ}33'$ E;
From meander cor. the north
end of base bears N $51^{\circ}33'$ W.
The required dist is therefore
tan $39^{\circ}46'$ x base or .83218'
 $\times 10.00$ chs = 8.32 chs.

Since flag on right bank
falls south of flag on meander
cor on left bank we compute
nesting across river as follows
Cos $11^{\circ}47'$ x 8.32 chs or .97893' x
8.32 chs = 8.14 chs.

Therefore the total dist. across
N body of sec 32 is
23.65 chs + 8.14 chs + 47.70 chs
which makes 79.49 chs.

Land level.

Soil clay. 2nd and 3rd rate.

Timber cottonwood:

Dense undergrowth on 18.35 chs.

Sept. 24 1895.

Subdivisions of 920 & 916 E.

Sept 25: 1885; at 8:20 a.m.
line, we set $\text{B} \theta 39^{\circ} 03'$ N on the
last arc; $0^{\circ} 59' 8''$ on the dial arc
and determine a true meridian
with the solar at the cor of secs
25, 26, 35 and 36 heretofore de-
scribed.

Therein we run $5:00'E$ on a
random line bet secs 35 and
36.

40.00 Set king $\frac{1}{4}$ sec cor.

83.26 Intersect 4th Standard Parallel south
1.9 lbs west of standard cor
of secs 35 and 36 heretofore
described.

Therein we run,
 $N 0^{\circ} 0' 6''$ on a true line bet
secs 35 and 36.

Are rolling sand hills.

6.30 Flat wash drains northly.

Dragon road in bottom of
wash.

35.00 descend gradually.

43.26 Set a sand stone $18 \times 14 \times 4$ ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on its face; dug
pits $18 \times 18 \times 12$ ins N and S of
stone 2 ft. dist. and raised
a mound of earth $3\frac{1}{2}$ ft. high
 $1\frac{1}{2}$ ft. high or of cor.

descend gradually.

51.55 Foot of sand ridge bars sand in
accord.

63.00 Top of sand ridge or bank.

Since our rolling hills.

83.26 The cor of secs 25, 26, 35 and 36.
Land rolling.

Soil sandy. Sand and slate.
No timber.

Rolling land over 83.26 des.

Subdivisions of T 20 R 16 E.

	N 0°01' W lat sec 25 and 26.
7.31	Wash drains East.
21.00	Wash drains N.W.
40.00	Set a sandstone 18x10x4 in 12 in in the ground for base cor marked 1/4 in or face; dug pits 10x10 x12 in N and S of stone 3 ft distant and raised a mound of earth 3 1/2 ft base 1 1/2 ft high of cor.
43.50	South side of hollow. Descend. Wash drains westerly ascend.
47.60	North side of hollow.
67.30	Descend over sand and clay ridges and hollows.
70.00	Wash drains westerly.
80.00	Set a sand stone 18x12x6 in 12 in in the ground for cor of sec 23, 24, 25 and 26; marked with 2 notches on S and 1 notch on E edge, dug pits 10x10x12 in in each sec 5 ft dist and raised a mound of earth 4 ft base 2 ft high of cor. Larch coniferous. Soil sand and clay. 2nd and 3rd rate. No timber. Mountainous larch on 80.0000.

	East on a limestone line bet secs 24 and 25. set tiny 1/4 sec cor.
40.00	Intersect E poly of T 21 at the cor of sec 19, 24, 25 and 30 heretofore described. Dense or rare West on a lime line bet secs 24 and 25.

Surf divisions of T20 S R 16 E.

	Descent.
0.30	Head of gully drains north. Ascend.
3.15	Top of spur slopes N.W. Descent.
13.00	Foot of spur. Cross hollow due S.W. Gives over sand hills and hollows.
39.98	Set a sand stone 18 x 10 x 5-in. 12-in in the ground for $\frac{1}{4}$ sec sec cor. marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Bits impracticable. wash drains N.W.
47.30	Same wash drains S.W. ascend.
52.20	Same wash drains S.W.
58.45	Top of sand ridge bears N and S.
6.000	Descent.
70.20	Flat wash drains S.W. Ascend.
-79.95	The cor. of secs 23, 24, 25 and 26. Land mountainous. Soil sand and clay. Sand and 3rd rate. No timber. Mountainous land on 79.95-lbs.

	No dirt bet secs 23 and 24 over rolling sand ridges.
6.80	wash drains N.W.
10.50	wash drains North mostly.
38.80	Foot of black cliff 50 ft high bears S.W. on east - ascend abruptly.
40.00	Top of black spur slopes S.W.
	Set a sand stone 24 x 8 x 8-in 18-in in the ground for $\frac{1}{4}$ sec

Subdivisions of T 20 S R 16 E.

We worked by one W face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high $\frac{1}{2}$ ft cor.
Pits impracticable.

Ascend over slide rock on west-slope under "bank cliff".

72.00 Top of slope descend over slide rock.

-80.00 North east end of round peak.

Set a sand stone $15 \times 10 \times 8$ ins 12 ins in the ground for cor of secs 13, 14, 23 and 24 marked with 3 notches on S and 1 notch on E edge and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high $\frac{1}{2}$ ft cor.
Pits impracticable.

Land mountainous.

Soil rocky. 40% rate.

No timber.

Mountainous land on 80.00 elev.

Left 25-159.5; at this cor we set off $1^{\circ}04'5$ on the declare and at 0° 00' merid. to observe the sun on the meridian.

The resulting lat is $38^{\circ}5'N$

It being impossible to survey further east on account of precipitous slide rock and ledges, we run N 0001' to 4 ft sec 13 and 14.

Descent abruptly.

Top of peak.

Thence over rough rocks and clay banks.

Since 1/4 sec cor will fall in

Subdivisions of T 20 R 16 E.

bottom of large wash, therefore at this point we set a sandstone $14 \times 10 \times 6$ ins 10 ins in the ground for a witness cor to $\frac{1}{4}$ sec cor; marked w.c. $\frac{1}{4}$ on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high or of cor. Bits impracticable.

37.80 South side of large wash. drains $8\frac{1}{4}$ ac. in wash. drains 8 ac.

40.00 Set a sandstone $24 \times 12 \times 6$ ins 18 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high or of cor. Bits impracticable.

Around up wash.

48.00 Same wash. Around up steep side of mountain, over slide rock.

69.00 It being impossible on account of precipitous slide rock and perpendicular, book cliffs, to survey further we, set a sandstone $24 \times 12 \times 6$ ins 18 ins in mound of rock (impossible to dig on account of rocks) for a witness cor to the cor of secs 11, 12, 13, and 14; marked w.c. on N.E. face with 4 notches on S and 1 notch on E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high or of cor. Bits impracticable.

- 80.00 Corner falls on top of perpendicular ledges, and can not be set; therefore we abandon line at witness cor. Land mountainous.

Subdivisions of T 20 S R 16 E

Soil rocky, 4th rate.
No timber.
Mountainous land on good ch.

Sept 25-1898:- At 3⁴ o'clock p.m.
Lat. we set off $39^{\circ} 0' 3''$ N from
the lat. arc; $1^{\circ} 07' 5''$ on the decl
arc and determine a true
meridian with the solar at
the cor of secs 26, 27, 34 and 35;
heretofore described.

Hence we run.

$S 0^{\circ} 0' 1''$ E on a random line
bet secs 34 and 35-

40.00 Set long $\frac{1}{4}$ sec cor.

82.46 Intersect the Fourth Standard Parallel
south 29 miles west of standard
cor of secs 34 and 35, heretofore
described.

Hence we run

$N 0^{\circ} 15' 4''$ W on a true line bet
secs 34 and 35-

Ascend.

6.00 E of sand ridge bears E and W.
Descend.

29.00 Wash drains westerly.
Thence over rolling sand
hills.

42.46 Set a sandstone 18x8x4 ins
12 ins in the ground for $\frac{1}{4}$
sec cor marked $\frac{1}{4}$ on surface;
dig pits 10x18x12 ins N and
S of stone 3 ft dist and raised
a mound of earth $3\frac{1}{2}$ ft high
 $1\frac{1}{2}$ ft high to cor.

82.46 Th cor. of secs 26, 27, 34 and
35-

Land rolling.

Soil sandy.

2nd and 3rd rate.

Subdivisions of T 20 S R 16 E.

No timber.

Rolling land on 82.46 chs.

N 0° 01' W lot sees 26 and 27

Ascend.

7.50 Top of sand ridge bears S and W.
There are sand hills and hollows.

38.10 South side of wash hollow drains west. descend.

40.00 South side of wash drains west.
Set a sandstone 24x12x10 ins
18 ins in the ground for 1/4 sec
cor marked 1/4 on top face, and
raised a mound of stone 2 ft
base 1 1/2 ft high or 3 cor.
Pits impracticable.

40.75 North side of wash. ascend.

42.15 North side of wash hollow.
There are sand hills.

61.10 Wash drains west, south side.

62.00 N side of wash.

64.30 Clay wash drains S. W.

70.00 Ascend.

80.00 Set a sand stone 18x8x6 ins
12 ins in the ground for
cor of sees 22, 23, 26, and 27.
marked with 2 notches on
S and E edges and raised a
mound of stone 2 ft base 1 1/2
ft high or 3 cor.

Pits impracticable.

Land mountainous.

Soil sandy.

2nd and 3rd rate.

No timber.

Mountainous land on 80.00 chs.

Sept 25 - 1898.

Subdivisions of T 20 S R 16 E.

	East on a random line bet secs 23 and 26. Set true $\frac{1}{4}$ sec cor. Intersect N and S line 10 ft N of cor of secs 23, 24, 25 and 26. Thence or run. $N 8^{\circ} 5' 6''$ or on a true line bet secs 23 and 26. Cor rolling sand hills and hollows draining to westward.
40.00	
80.06	
40.03	Set a sand stone 14x10x8 ins. 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stones 2 ft base $1\frac{1}{2}$ ft high N of cor. Ridge impracticable. The cor of secs 22, 23, 26 and 27. Land rolling. Soil sandy. 2nd and 3rd rate. No timber. Rolling land on 80.06 chs.
80.06	

Sept 26: 1898: At 9:00 a.m.
L.M.T. we set off $39^{\circ} 6' 4''$ on the
lat arc $1^{\circ} 24' 3''$ on the decl arc
and determine a true
meridian with the solar at
the cor of secs 22, 23, 26 and 27.
Thence or run.

$N 0^{\circ} 0' 1''$ bet secs 22 and 23.

Ascend.

E of low clay ridge bars
E and on.

Descent gradually.

Wash drains west.

Ascend gradually.

Set a sand stone 10x10x4 ins
12 ins in the ground for $\frac{1}{4}$ sec

Subdivisions of 720 S or 16 E.

- cor marked 1/4 acre to face, dug
pit 18 x 18 x 12 ins N and S of
stone 3 ft deep and raised a
mound of earth 3 1/2 ft high
1 1/2 ft high in of cor.
- 49.16 North edge of bunch. bars E and S
discreet.
- 54.00 Old wagon road bars N.E. and S.
66.30 Small wash drains N. W.
- 8000 Set a sand stone 16 x 10 x 6 ins
11 ins in the ground for cor of
secs 14, 15, 22 and 23 marked
with 3 notches on S and 2 notches
on E edges and raised a
mound of stone 2 ft high
1 1/2 ft high in of cor.
Pits impracticable.
Land mountainous.
Soil sand and clay,
2nd and 3rd rate.
No timber.
Mountainous land on 8000
- S 89° 56' E on a standard line
bet secs 14 and 23.
- 40.00 Set tang 1/4 sec cor.
- 80.00 Intercept N and S line 100 ft
south of cor of secs 13, 14, 23 and
24.
Tang on line west on a
true line bet secs 14 and 23.
descend along N slope.
- 65.0 T of ledge 6 ft high bars N and S.
descend abruptly.
- 7.00 Foot of ledge.
Tang over numerous
small ridge and hollows.
- 4000 Set a sand stone 14 x 12 x 6 ins
10 ins in the ground for
1/4 sec cor marked 1/4 acre N

Subdivisions of T 20 S 03 16 E.

face and raised a mound of stone 2 ft base 1½ ft high N of cor. Bits impracticable.

80.00 The cor. of secs 14, 15, 22 and 23.

$\frac{60}{140}$ Laird. mountainous and rolling. Soil sandy and rocky. 2nd and 4th rate.

No timber.

Mountainous land on 40.00 acs.

Rolling land on 40.00 acs.

10° 0' N bt secs 14 and 15.

6.10 Small wash drains w.

10.00 Cutts of main wash about

1.00 chain wide. drains west. Foot of bench bears E and w. Ascend.

Top of bench.

North side of bench. Descend.

Set a sand stone 14x10x6 in 10 ins in the ground for 1/4 cor. on marked 1/4 on W face and raised a mound of stone 2 ft base 1½ ft high N of cor. Bits impracticable.

Thence over rough ridges and hollows draining westerly.

6.00 Foot of main road, bench or knoll 300 ft high bears E and w. Ascend abruptly.

74.00 Foot of Boot Cliff 250 ft high, impossible to survey further therefore we set a sand stone 18x6x6 ins 12 ins in the ground for a witness cor to cor of secs

10, 11, 14 and 15 marked 4. C. on N.E. face with 4 notches on S and 2 notches on E edges.

Subdivisions of T 20 S or 16 E.

and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high on 2 cor.
Rigs impracticable.

- 8000 The cor of secs 10, 11, 14 and
15 falls in impassable ledges
and can not be set.

Land mountainous.

Soil rocky, 40% rate.

No timber.

Mountainous land on south ds.

Left 26-1898. At 0° 0' m.l.m.
sky over cast, impossible to
take lat observation.

Since it is impossible on
account of "Book Cliffs" to
survey the north half of
sec 14, we run
 $N 0^{\circ} 0' 14''$ bt secs 10 and 11.

- 400 1/4 sec cor falls on top
of mesa and can not
be set.

Since it is impossible on
account of abrupt ledges
to chain on a true line
bt secs 10 and 11 we run
on offset line as follows
in sec 15.

From 1/4 sec cor bt secs 14
and 15 run west, 33.00 chs,
thence $N 0^{\circ} 0' 14''$ 4000 chs,

thence $N 20^{\circ} 14''$ 4000 chs

thence $N 20^{\circ} E$ 407.13 chs

thence East 33.22 chs

to a point on north side
of mesa, 80.00 chs $N 0^{\circ} 14''$
of the true cor point for
secs 10, 11, 14 and 15, where
we

- 8000 set a sandstone 24x10x8 ins

Subdivisions of T 20 S or 16 E.

18 in in mound of rock. (impossible to dig on account of rocks) for cor of secs 2, 3, 10 and 11 marked with 5 matches on S and 2 matches on E edge and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high 8 in of cor.

Site impracticable.

Land mountainous.

Soil rocky 40% slate.

No timber.

Mountainous land on 80.000 ds.

Since it is impossible on account of abrupt and precipitous "Bank Cliffs" to run east but secs 2 and 11 or run N 0°01' or on a random line but secs 2 and 3.

26.00 Foot of abrupt ledge.

Set line with cor to 1 $\frac{1}{2}$ sec. m. Since it is impossible on account of ledge to run further on an abrupt random line but secs 2 and 3 are forced as follows.

Return to a point 10.00 dm N. 0°01' or of cor of secs 2, 3, 10 and 11 from which we run west 26.00 chs on a random offset line in sec 3 a short $\frac{1}{2}$ 2.6 chs, Then west 0°01' on 7.000 chs, Then East 2.600 chs where we intersect the cor of secs 2, 3, 34 and 35, on the N side of the T.L. heretofore described.

The course of the line line but secs 2 and 3 is therefore S 0°01' E.

Subdivisions of 920 S 816 E.

- Since it is impossible on account of impassable ledges to run $68^{\circ} 0' 0'' E$ on a true line bet secs 2 and 3 or return to the cor of secs 2, 3, 10 and 11 and run $N 00^{\circ} 45' E$ on a true line bet secs 2 and 3.
Dashed over slide rock.
Wash in bottom of box canyon drain West.
Accord abruptly over slide rock.
- 26,000 Foot of "Book cliffs" 150 ft high. Run East and west.
Set a sand stone $18 \times 10 \times 6$ in 12 in in mound of rock for a witness cor to $6\frac{1}{4}$ sec cor marked N.C. $\frac{1}{4}$ in on face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high w of cor.
Pits impracticable
- 40,000 $\frac{1}{4}$ sec cor falls in cliffs and can not be set.
- 80,000 Intersect the N. edge of the Td at the cor of secs 2, 3, 34 and 35 as heretofore described.
Land mountainous.
Soil rocky 4th rate.
Timber scrub cedar on top of mtn's.
Mountainous land on 80,000 chs.

Sept. 26-1888.

From the cor of secs 27, 28, 33. and 34 heretofore described we run
 $80^{\circ} 0' 5'' E$ on a random line bet secs 33 and 34.

Subdivisions of T 30 S R 16 E.

40.00	set long $\frac{1}{4}$ sec cor.
81.78	Intersect S top of the T of 10th sec west of cor of secs 3, 4, 33 and 34, heretofore described. Hence we run. No 0°0' W lat sees 33 and 34. Ascend gradually.
18.00	Point of gravel ridge slopes east descend.
21.00	South side of hollow. descend. Wash drains west. ascend.
30.00	gradually on ridges and hollows.
31.40	gradually on ridges and hollows.
41.78	Set a sand stone 18x10x10 in 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on W face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high to $\frac{1}{4}$ cor. Pits impracticable.
63.00	T of low sand ridge bears E and W. descend gradually.
- 81.78	The cor of secs 27, 28, 33 and 34. Land mountainous. Soil sand and gravel. 2nd and 3rd rate. No timber. Mountainous land on 81.78 ab.

Sept 27. 1898; at 8 A.M. a.m.
L.M.T. we set off $39^{\circ}0'3''$ N of
the lat arc; $1^{\circ}47'5''$ on the decl
arc and determine a true
meridian with the solar.
at the cor of sec 27, 28, 33 and
34.

Hence we run
N 0°0'2" W lat sees 27 and 28.
descend.
Wash drains N.W. ascend.
T of 7 sand bench runs north and

2.00

7.00

Subdivisions of T 30 S R 16 E.

- S.E. Ascend gradually.
 24.30 Top of low ridge bears N.W. and S.E. descended.
 40.00 Set a sand stone 16x10x6 ins 12 ins in the ground for 1/4 sec cor marked 1/4 on top face; dug pits 18x18x12 ins N and S of stone 3 ft dia. and raised a mound of earth 3 1/2 ft. base 1 1/2 ft high to of cor.
 Thence over low ridges and small gully draining west. Large wash drains east.
 Ascend gradually.
 60.34 Set a sand stone 16x8x5 ins 11 ins in the ground for cor 6 secs 21, 22, 27 and 28 marked with 2 notches on 8 and 3 notches on 5 edges; dug pits 18x18x12 ins in each sec 5 1/2 ft dia and raised a mound of earth 4 ft base 2 ft high to of cor.
 Land mountainous.
 Soil sandy.
 24d and 3rd rate.
 No timber.
 Mountainous land on 8000 ch.

- East on a random line bet secs 22 and 27.
 40.00 Set line 1/4 sec cor.
 80.11 Intersect N and S line 2.66 chs S of cor of secs 21, 22, 27 and 28
 Thence in a run S 89° 39' in on a true line bet secs 28 and 27.
 Low rolling brush sloping N.W.
 40.06 Set a sand stone 14x10x10 ins 10 ins in the ground for

Subdivisions of T 20 S R 16 E.

	1/4 sec cor marked 1/4 on N face and raised a mound of stone 2 ft base 1 1/2 ft high N of cor. Pits impracticable. Ground wet. drains S.E.
44.00	Ascend gradually over rolling hills.
80.11	The cor of secs 21, 22, 27 and 28. Land rolling. Soil sand and clay. 2nd and 3rd rate. No timber. Rolling land on 80.11 c.s. Soft 24-1088. At this cor we set off 151' on the decl. arc and at 0° 00' 41" n.t. observe the sun on the meridian. The resulting lat is 38° 0' 41" N.
	No° 02 W lat secs 21 and 22. Ascend gradually.
2.50	Top of brush bears E and W. Slopes gently to west.
40.00	Set a sandstone 14x10x6 in 10 in in the ground for 1/4 sec cor marked 1/4 on N face; dug pits 18x18x12 in N and S of stone 3 ft dist and raised a mound of earth 3 1/2 ft high 1 1/2 ft high N of cor. Brush bears E and W.
50.80	North edge of brush. Drained.
72.84	Set a sand stone 16x12x6 in 11 in in the ground for cor of secs 18, 16, 21 and 22 marked T 20 S on N.E., R 16 E on S.E. faces with 3 notches on S and E edges and raised a mound of stone 2 ft high 1 1/2 ft high N of cor. Pits impracticable.
80.00	

Subdivisions of T20S R16E.

Land rolling.

Soil sandy.

2nd rate.

No timber.

Rolling land on 80.00 cts.

N 88° 5' E on a random
line bet secs 15 and 22.

40.00 Set tiny $\frac{1}{4}$ sec cor.

80.02 Intersect N and S line 11 hrs N
of cor of secs 14, 15, 22, and 23.
Then run N 88° 5' E
on a true line bet secs
15 and 22.

Over clay flat.

21.90 South side of large wash
drains 2 in.

25.00 North bank of same wash.

40.01 Set a sand stone 24 x 12 x 10 ins
18 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
bits impracticable

41.00 Enter wash bottom drains
N. W.

44.00 Lean bottom accend gradually

80.02 The cor of secs 15, 16, 21 and
22.

Land rolling.

Soil sand and clay.

2nd and 3rd rate.

No timber.

Rolling land on 80.02 cts.

Sept 27-1898.

N 0° 2' W bet secs 15 and 16.

descend.

4.60 South side of large wash drains

Subdivisions of T 20 S or 16 E.

	rest.
5.00	With bank of marsh.
16.50	Foot of sand ridge bears E and W ascend.
18.00	Top of ridge.
20.30	Foot with side of ridge.
40.00	Set a sand stone 18x10x6 ins 12 ins in the ground for 1/4 sec. cor. marked by on surface and raised a mound of stone 2 ft base 1 1/2 ft high w/f cor. Pit impracticable.
56.00	Foot of bench bears E and W ascend.
58.30	Top of bench.
64.50	Head of gully drains N. w. North edge of bench descend.
69.00	Foot of bench.
74.20	Thence over rolling hills.
80.00	Set a sand stone 18x10x6 ins 12 ins in the ground for cor. of secs 9, 10, 15 and 16, marked with 4 notches on S and 3 notches on E edges and raised a mound of stone 2 ft base 1 1/2 ft high w/f cor. Pit impracticable.
	Land mountainous, soil sand, gravel and clay, 2nd and 3rd rate. No timber.
	Mountainous land on south.

Sept 28 1898. - At 8:00 a.m. in
the t. we set off 38° 6' N on
the lat arc: 2° 11' S on the
decl arc and determine a
true meridian with the solar
at the cor of secs 9, 10, 15 and 16.
Thence we run.

Subdivisions of T 20 S R 16 E.

	5.89°56' E on a random line bet secs 10 and 15.
40.00	Set true $\frac{1}{4}$ sec cor. Since cor of secs 10, 11, 14 and 15 falls in precipitous ledge and is not set or run on a random offset line from the above $\frac{1}{4}$ sec cor as follows. $80^{\circ}01'E$ 10 chs. $58^{\circ}56'E$ 40.00 chs Hence $N^{\circ}01'W$ 4.00 chs where we intersect the witness cor to cor of secs 10, 11, 14 and 15 Hence from witness cor we run on offset line as follows. $S^{\circ}01'E$ 4.00 chs, thence west 4.00 chs, thence $N^{\circ}01'W$ 10.00 chs to a point 40.00 chs due west from true cor point for cor of secs 10, 11, 14 and 15.
40.00	Set a sand stone 18 x 12 x 5 in 12 in in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N base and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Pits impracticable. Discard.
48.00	Foot of spur slopes S.E.
56.00	wash drains N.W.
75.00	wash drains N.W.
- 8.00	The cor of secs 9, 10, 15 and 16. Land mountainous. Soil sandy and rocky. 3rd and 4th rate No timber. Mountainous land on 80.00 chs.

$N^{\circ}01'W$ bet secs 9 and 10
2.50 wash drains N.W.
5.00 wash drains N.W.

Sub divisions of 720 S. 0816 E.

- 16.90 Left bank of Green River.
 Set a sand stone 18 x 12 x 4 ins
 12 ins in the ground for meander
 cor of fract secs 9 and 10; marked
 N.C. on N face with 3 grooves on
 E face; and raised a mound
 of stone 2 ft base 1 $\frac{1}{2}$ ft high
 3 of cor. This impracticable.
 To determine dist across river
 we set a flag no 2 44 lbs 100 ins
 of the right bank; then leave
 flag no 1 at meander cor and
 proceed to flag no 2.
 From flag no 2 we measure
 a base line $88^{\circ}58' \text{ or } 10.00 \text{ chs}$
 to a point whence flag no 1 bears
 $S 46^{\circ}41'E$; from flag no 1, west
 end of base bears $N 46^{\circ}41'W$;
 The required dist is therefore
 tang $43^{\circ}21' \times$ base or $.94400'$
 $\times 10.00 \text{ chs} = 9.44 \text{ chs.}$
 $9.44 \text{ chs} + 16.80 \text{ chs makes}$
 26.34 chs
 From Flag no 2 we chain
 $8^{\circ}02'E$ 44 lbs
 $26.34 \text{ chs} - .44 \text{ lbs makes}$
 To Right bank of Green River.
 Set a boulder 16 x 6 x 6 ins
 11 ins in the ground for
 meander cor of fract secs
 9 and 10 marked N.C. on S
 face with 3 grooves on E face
 and raised a mound of stone
 2 ft base 1 $\frac{1}{2}$ ft high 3 of cor.
 This impracticable.
 Enter cottonwood trees.
 Irrigation ditch drains S.W.
 Leave timber.
 Set a sand stone 16 x 4 x 6 ins
 11 ins in the ground for 44 sec
 cor marked $\frac{1}{4}$ on. W. face

Subdivisions of 920 & 916 E.

- dig pits - 18x18x12 ins N and S of stone 3 ft dist and raised a mound of earth 3 $\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft high or of cor. 57.75 - Old wagon road bears N & and S. W.
- 75.00 Post of main mountain across abruptly.
- 80.00 Point about 8.00 chs S.E. of Garrison Butte.
Set a sandstone 18x6x8 ins 12 ins in mound of stone (impossible to dig on account of rocks) for cor of secs 3, 4 & 9 and 10 marked with 5 notches on S and 3 notches on E edges and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high or of cor. Pits impracticable.
Land mountainous
Soil sand and clay 2nd and 3rd rate.
Timber cottonwood on 3.00 chs.
Mountainous land on 8.00 chs soft 2.8-1885. at this cor we set off 2°14'8 on the decl arc and at 8.00 m. l.m.t.
the sum on the meridian.
The resulting lat is 38°5'6" N

- East on a random line bet secs 3 and 10.
- 13.00 Right bank of Green River
Set tiny meander cor.
To determine dist across we set flag on line on left bank of river; then measure a base line worth 15.00 chs to a point whence the flag bears.

Subdivisions of T 20 S of 16 E.

S $64^{\circ}30'E$; From the flag the north end of the base bears N $64^{\circ}30'E$.

It was impossible on account of river and ledges to obtain longer base line.

The required dist is therefore tang $64^{\circ}30' \times$ base or 2.09654
 $\times 15.00$ chs = 31.45 chs.

31.45 chs + 13.00 chs makes

44.45 Left bank of Green River.
 Set long marker cor.

$\frac{1}{4}$ sec cor falls in river.

80.10 Intersect N and S line 12 chs
 N of cor of secs 3, 8, 10 and 11
 Hence in river
 N $89^{\circ}55'W$ on a true line
 bet secs 3 and 10.

Along steep north slope in
 slide rock, under "Book
 cliff" facing north.

12.00 Head of old gulch drains
 north.

25.00 Top of rock spur bears N.W.
 and S.E. slopes N.W.

29.00 Top of spur. Enter river
 bottom.

35.00 Since $\frac{1}{4}$ sec cor falls in
 river and can not be set,
 therefore at this point
 we set a sandstone 16x9x6
 ins 11 ins in the ground for
 a witness cor to $\frac{1}{4}$ sec cor
 marked W.C. $\frac{1}{4}$ on N face
 and raised a mound of
 stone 2 ft base $1\frac{1}{2}$ ft
 high N of cor.

Pits impracticable.

35.65 Left bank of Green River
 Set a sandstone 18x12x6 in

Subdivisions of T 20 S 91 E.

12 ins in the ground for
meander cor of fract sec
3 and 10 marked N.C. on E
face with 6° grooves on S
face and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft
high East C cor.

Pits impracticable.

67.10 Right bank of Laramie River
set a sandstone 16 x 10 x 8 ins
11 ins in the ground for
meander cor of fract sec
3 and 10 marked N.C. on E
face with 6° grooves on S
face and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft
high N of cor.

Pits impracticable.

Accord.

- 80.10 The cor of sec 3, 4, 9 and 10.
Land mountainous.

Soil rocky and sandy.

3rd and 4th rate.

No timber.

Mountainous land on 80.10 ds.

N 0°0' is on a random
line bet secs 3 and 4.

Set line $\frac{1}{4}$ sec cor.

Since it is impossible on
account of ledges to chain
on a direct line to N wdg of
T 2 or run on ^{random} offset
line as follows from line
 $\frac{1}{4}$ sec cor; East 13.00 chs

Thence N 0°0' is 40.00 chs

Thence west 13.00 chs where

we intersect the cor of
secs 3, 4, 33 and 34 on the
N wdg of the T 2 section

Six divisions of 720 & 716 E.

described.

The true course of line bet' secs 3 and 4 is therefore $80^{\circ}02'E$. Since it is impossible on account of ledges to run $80^{\circ}02'E$ on a true line bet' secs 3 and 4 we run on offset line as follows from cor of secs. 3, 4, 33 and 34
 East 13.00 chs, thence $80^{\circ}02'E$
 35° chs; thence west 13.00 chs
 to a point on true line bet'
 secs 3 and 4 30.00 chs $80^{\circ}02'E$ of
 cor of secs 3, 4, 33 and 34.

35.00 South side of ledge 100 ft
 high has 8 and w.
 ground.

40.00 In north side of large
 canon wash draws easterly.
 Set a sandstone 18x12x6 in
 12 in in the ground for $\frac{1}{4}$ sec
 cor marked $\frac{1}{4}$ on w face and
 raised a mound of stone
 2 ft base 1 $\frac{1}{2}$ ft high w of cor.
 Pit impracticable.

41.00 Since $\frac{1}{4}$ sec cor falls in
 wash, therefore at this
 point we set a sandstone
 14x12x4 in 10 in in the
 ground for a witness cor
 to $\frac{1}{4}$ sec cor marked w.c.
 $\frac{1}{4}$ on w face and raised
 a mound of stone 2 ft base
 1 $\frac{1}{2}$ ft high w of cor.
 Pit impracticable.
 Accord.

50.00 Top of round knoll N.E. of
 Gunnison Butte.

60.00 Top of ledge has 8 and w
 ground.

62.00 Top of ledges

Subdivisions of T 20 S & R 16 E.

68.00 Point of ledge faces east.
descend over slide rock on
S.E. slope.

- 80.00 the cor. of secs 3, 4, 9 and 10.
land mountainous.
with rocky surface.
no timber.

Mountainous land on 80.00 obs.

Sept 28 - 1898.

From the cor. of secs 28, 29,
32 and 33 heretofore described
in run.

$8^{\circ}0'3'E$ on a random line
bet secs 32 and 33.

40.00 set tang $\frac{1}{4}$ sec cor.

80.90 Intersect S. by E. of 92 1/2 lps west
of standard cor. of secs 32 and 33
heretofore described.

Thence in run $N^{\circ}0'08'W$
on a true line bet secs 32 and
33.

Through cottonwoods.

6.10 Fence runs N.E. and S.W.

Leave cottonwood. Enter
large over flow channel of
Green River.

10.9 N side of channel drains
S. w. dry at time of survey.
Enters dense cottonwood and
willow brush.

18.00 Enter cottonwoods.

20.90 Sees scattering timber

23.10 South side of same over
flow channel mentioned
above drains so east.

Leave under growth and
timber.

262 - North bank of over flow
8 ft. high.

Subdivisions of T 20 S R 16 L.

- Enter scattering cottonwood timber.
- 33.00 Leave timber. enter sage brush and greasewood.
- 38.10 South edge of cultivated field owned by Chas Myres bears E and N. leave brush.
- 40.90 Set a cottonwood post 3 ft long and 3 ins sq with marked stone 24 ins in the ground for 1/4 sec cor marked 1/4 S 32 on W; S 33 on E faces and dug pits 10 x 10 x 12 ins N and S of post 3 ft dirt and raised a mound of earth 3 1/2 ft base 1 1/2 ft high on E cor.
- 44.15 Leave cultivated field, enter lucerne.
- 48.60 Fence bears S 30° W - N 30° E.
- 49.05 From this point S.W. cor of stock barn bears N 11° 30' E 2.36 chs dist. S.E. cor stock barn bears N 27° 25' E 2.5+ chs dist. S.W. cor stock yard fence bears N 12° 15' E 1.40 chs dist. S.E. cor stock yard fence bears N 49° 45' E 2.09 chs dist.
- 50.00 East bank of slough drains south and S.W.
- 52.55 From this point stock yard fence bears east 4.3 chs dist. S.W. cor of Chas Myres house bears N 52° 10' W 2.46 chs dist.
- S.E. cor of house bears N 47° 50' W 2.00 chs dist.
- 54.15 South side of lucerne field ^{about 68 ft} north side of field
- 65.50 Irrigation ditch drains east 3 chs wide. leave field.

Subdivisions of T 20 S of 16 E.

80.90 15.10 14.60	Entered clives and sage brush. The cor. of secs 28, 29, 32 and 33. Land mountainous and rolling. Soil clay gravel and sand 2nd and 3rd rate. Timber cottonwood on 17.75 acs. Heavily timbered land or land covered with dense under- growth on 45.55 chs. Rolling land on 27.40 chs. Mountainous land on 7.90 chs.
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Sept 29. 1898 in Lat 92° 00' m a.m.	
bun. m set off $89^{\circ} 03' N$ on the lat arc; $234^{\circ} 5$ on the decl. arc; and determine a true meridian with the solar at the cor. of secs 28, 29, 32, and 33.	
Then m run.	
$N 0^{\circ} 03'$ to lat secs 28 and 29.	
Through dense clives and sage brush.	
10.70	Fence bars N.W. and S.E.
14.70	County road bars $N 10^{\circ} E$; $S 10^{\circ} E$ Leave brush.
24.00	Road running East up wash draining west.
24.50	Cuts of wash
27.50	Entered county road bars N and S Also mouth of large wash drains west. Ascend up road.
29.80	Leave road bars N.E. and South.
36.50	Top of gravel bench, bars E and W. Road about 2.00 chs East.
40.00	Set a sandstone $18 \times 12 \times 10$ ins 12 ins in the ground for 3/4 sec

Subdivisions of 7208816 E.

- Cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high on cor. Pits impracticable.
- 45.50 North side of bank. Descend. Bottom of bank drains west account.
- 50.40 Point faces west. Descend. Bank drains west and S. in account.
- 52.00
- 55.62
- 58.50 7 of 7 clay bluff facing river. Since cor of secs 20, 21, 28 and 29 will fall in river, therefore at this point we set a hard lime stone $16 \times 10 \times 4$ ins 11 ins in the ground for a witness point to cor of secs 20, 21, 28 and 29. Marked W.P. on N.E. face with 2 notches on S and 4 notches on E edges and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high on cor. Pits impracticable.
- 60.58 Left bank of Green River. Set a limestone $12 \times 9 \times 5$ ins 8 ins in mound of rock (impossible to dig on account of rocks) for remainder cor of tract secs 2:8, and 2:9. Marked N.C. on N face with 4 grooves on E face and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high S of cor. Pits impracticable. Cor fall on high bluff about 70 ft above surface of river.
- Since it is impossible on account of river to chain further on same line bet secs 2:8 and 2:9

Subdivisions of T 20 S or 16 E.

we run on offset line as follows from meander cor.
East 14.00 chs, Thence N 00°
21.42 chs (at 3.00 chs descend
from bluffs. 10.00 Foot of bluffs
bear N.E. and S.W. 18.25 chs
Fence bars N.E. and S.W.)

Thence west 5.89 chs to
left bank of Green River.
Cor of secs 20, 21, 28 and 29
falls in river and can not
be set.

Land mountainous and rolling.
Soil clay and gravel,
2nd and 3rd rate.

Timber cottonwood along
river bank.

Mountainous land or land
covered with dense under-
growth on 80.00 chs.

East on a random line
bet secs 21 and 28.

Since cor to secs 20, 21, 28, and
29 can not be set in begin
at a point 8.11 chs East of
line cor point as explained
above, the same being on
left bank of Green River.

Set line 1/4 sec cor.

Intersect N and S line 2 chs
South of cor of secs 21, 22, 27
and 28.

Thence we run 88°54' E on
a true line bet secs 21 and
28.

Over rolling sand hills
descending gently.

West edge of bottom. Descend.
Road bears N and S ascend.

36.00

39.10

Subdivisions of T20S or 16T.

- 40.06 Set a sandstone 16x8x8 in
12 in. in the ground for
1/4 sec cor marked "4" on
N face and raised a mound
of stone 2 ft base 1 1/2 ft high
N of cor. Pits impracticable.
Dense over numerous
small gully draining
N.W.
- 56.00 Top of bluff bears N.E. and
S.E. Drained.
- 59.65 Part of bluff. Enter river
bottom.
- 59.90 County road bears N.E. and S.E.
- 60.40 FENCE bears N.E. and S.E.
wagon road runs N.W. and S.E.
- 70.00 Enter scattering cottonwoods.
- 71.75 Since cor of secs 20, 21, 28
and 29 falls in river and
can not be set, therefore
at this point see:
Set a sandstone 16x8x6 in
11 in. in the ground for
a witness cor to cor of secs
20, 21, 28 and 29; marked
M.C. on N.E. face with
2 notches on S and 4 notches
on E edges and raised a
mound of stone 2 ft base
1 1/2 ft high west of cor.
Pits impracticable.
- 72.00 Left bank of Green River.
Set a sandstone 16x12x6 in
12 in. in the ground for
a meander cor of fract
secs 21 and 28 marked M.C.
on N face with 2 grooves
on S face; from which
a cottonwood 18" diam
bears N 34° in 85 lbs dirt
marked T20S or 16T S 21 M.C. B.T.
A cottonwood 18 in diam

Subdivisions of T 20 S or 16 E.

- bears N $34^{\circ} 30'$ E 51 chs dist -
marked T 20 S or 16 E 8 21 M.C. B.P.
No trees within limits - on
south side of line in sec 28.
Therefore we raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft high
East of cor. Bits impracticable.
- 80.11 The cor of secs 20, 21, 28
and 29, falls in river and
can not be set.
Land mountainous and
rolling.
Soil sand and clay.
2nd and 3rd rate.
Timber cottonwood near
river bank only.
Rolling land on 56.21 chs
Mountainous land on 23.90 chs
Sept 29-1898. - At 5'00 m. best
spot over cast, impossible
to take lat observation.

knowing that old survey
is closed upon right
bank of river we de-
termine a closing line, fit
meander cor of gravel sec
21 and 28 and flag previous-
ly set on right bank of
rivers, as follows:
From meander cor, flag
on right bank bears $8.83^{\circ} 45'$ W
(also south end of large
island bears N $55^{\circ} 30'$ or about
8.00 chs dist and south end
of same island bears
 $S 12^{\circ} 30'$ or about 17.00 chs dist)
In order to determine dist
between meander cor and
flag we leave flag at

Subdivisions of 920.8916 E.

meander cor and proceed to flag on right bank of river from which we measure a base line N 14° 00' W 100' to a point where the flag on meander cor falls. S 60° 29' E From meander cor north end of base bars N 60° 29' W. ✓
 X In order to compute dist bet flags we proceed as follows. Angles taken in order of measurement are respectively 97° 45', 46° 29' and 35° 46'

$$\log \sin 46.29' = 9.860442^{\vee}$$

$$\log 10 = \underline{1.000000}^{\vee}$$

$$\log \sin 35^{\circ} 46' = \underline{10860442}^{\vee}$$

$$\log \text{required side} = \underline{9.766774}^{\vee}$$

Required side is therefore

12.41 chs. "

$$\cos 6^{\circ} 15' = .99406$$

$$.99406 \times 12.41 = 12.34 \text{ chs} = \text{bearing across river.}$$

$$\sin 6^{\circ} 15' = .10887$$

$$.10887 \times 12.41 = 1.35^{\circ} \text{ chs} = \text{falling bet the two flags.}$$

$$12.34 \text{ chs} - 8.11 \text{ chs} = 4.23 \text{ chs}$$

✓ 74.88 (dist from cor of sides 19, 20, 28 and 30 to flag on right bank as retraced) added to 4.23 chs makes 79.11 which is the bearing of the north bank sec 29 ✓

N 0° 3' W bet secs 20 and 21.

Since cor of secs 20, 21, 28 and 29 falls in river and is not set on line from the meander cor, which is 8.11 chs N 89° 59' E from true

Subdivisions of 9205 or 16 E.

cor point, on offset line
in sec 21 as follows.

$N 0^{\circ} 0' 3''$ or 21.20 chs.

(at 14.00 chs S.E. cor of Jos
A. Ross' house has $N 64^{\circ} 30'$ or

6.10 chs dist. N.E. cor of
stable has $S 54^{\circ} 35'$ or 4.50 chs
dist) at 12.00 chs cross road N.W. & S.E.

Thence $S 89^{\circ} 59' W$ 8.11 chs
to a point on the left bank
of Green river 21.20 chs $N 0^{\circ} 3'$
from true point for cor of
secs 20, 21, 28 and 29.

21.20 Set a sandstone 18x12x6 ins
12 ins in the ground for
wander cor of tract secs
20 and 21 marked W.C. on
S face with 4 grooves on E
face and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft high
 N of cor. Bits impracticable.
thence $N 0^{\circ} 0' 3''$ on a true line
bt secs 20 and 21.

Enters thick brush and scatter-
ing cottonwood. Along bottom
near river bank.

40.00 Point for $\frac{1}{4}$ sec cor falls in
wash out on river bank and
cor can not be set in proper
place; therefore on offset
East 50 lls and

Set a sandstone 18x12x3 ins
12 ins in the ground for a
wander cor to $\frac{1}{4}$ sec cor marked
W.C. $1\frac{1}{4}$ on E face; from which
a cottonwood 18 ins diam bears
 $N 62^{\circ} W$ 35 lls dist marked
W.C. $1\frac{1}{4}$ S 21 B.T.

A cottonwood 18 ins diam bears
 $N 30^{\circ} E$ 2.5 lls dist marked
W.C. $1\frac{1}{4}$ S 21 B.T.

Subdivisions of T 20 S R 16 E.

- Continue N 0° 03'w on true line bet
secs 20 and 21 along river bank.
From this point L. U. Valentine's
farm bears N 50° E. House bears
N 41° 30' E., Coral bears N 35° 40' E.
Scattering cottonwood along river bank.
From this point L. U. Valentine's
farm bears S 65° E. House bears
N 80° 50' E. Coral bears N 80° E,
water wheel No 1 bears N 13° 15' W
water wheel No 2 bears N 4° 45' W
Fence bears E and W.
East end of plume from water wheels.
From this point water wheel No 1
bears N 52° 40' W. Water wheel No 2 bears
S 50° 45' W. Dear timber.
Leave river bank.
Set a sand stone 16 x 6 x 4 ins 11 ins
in the ground for meander cor of
gravel secs 20 and 21 marked N.C. on S
face with 4 notches on E face; dug
a pit 30 x 30 x 12 ins & ft N. of stone and
raised a mound of earth 4 ft base 2 ft
high N of cor.
wagon road bears N.W. and S.E.
Irrigation ditch 3 ft wide drains
East and S.E.
Set a sand stone 18 x 16 x 8 ins
12 ins in the ground for cor of
secs 16, 17, 20, and 21, marked with
3 notches on S and 4 notches on E
edges; dug pits 18 x 18 x 12 ins
in each sec 5 1/2 ft deep and
raised a mound of earth 4 ft base
2 ft high N of cor.
Land mountainous and rolling
soil sandy and stony.
2nd and 3rd rate.
Timber cottonwood on 42.23 ac.
mountainous land or land
covered with dune underneath

1.35.1

Subdivisions of T 20 S R 16 E.

on 80.00 chs

- N 89°59' E on a random line
bet secs 16 and 21.
40.00 Set line $\frac{1}{4}$ sec cor.
79.95 Intersect N and S line at the cor of
secs 15, 16, 21 and 22.
 T fence on line
 S 89°59'E on a line line bet secs
 16 and 21.
 Dugout along north side of bench
 over small gullies draining north.
29.80 Top of bench bears N.W. and S.E.
31.90 Dugout gradually.
39.98 Set a sand stone 16x10x6 ins 11ins
 in the ground for $\frac{1}{4}$ sec cor worked
 $\frac{1}{4}$ on N face and raised a mound
 of stone 2 ft base $\frac{1}{2}$ ft high N of
 cor. Pits impracticable.
 Cor falls on west side of bench
 dugout.
43.00 Foot of bench.
49.85 County road bears N and S.
56.00 West drains S.W.
79.95 The cor of secs 16, 17, 20 and 21
 land mountainous.
 Soil sandy and stony.
 2nd and 3rd rate.
 No timber.
 mountainous land on 79.95 chs.

Sept 29 - 1895.

since old survey is closed upon
right bank of Green River we run
west on line line bet secs 17 and
20.

- 5.00 wagon road bears N.W. and S.E.
5.40 Irrigation ditch bears N.W. and S.E.
8.45 Fence bears N and S

Subdivisions of T 20 S R 16 E.

- 10.30 Enter plowed field.
 16.40 Leave plowed field. Enter cottonwoods.
 16.90 Left bank of Green River.
 Set a sandstone 18x12x4 ins 12
 ins in the ground for meander
 cor. of fuel acre 17 and 20, with
 3 grooves on S face; marked N.C. on
 W. face from which
 A cottonwood 10 ins diam bears
 $S 3^{\circ} 00' E$ 57 chs dist marked
 T 20 S R 16 E 8 20 N.C. B.T.
 A cottonwood 24 ins diam bears
 $N 14^{\circ} 30' W$ 55 chs dist marked
 T 20 S R 16 E 8 17 N.C. B.T.
 From this meander cor John
 Peake house bears $N 27^{\circ} 15' E$
 Barn bears $N 26^{\circ} E$.
 From meander cor the flag
 previously set 44.43 chs East of
 old cor of aces 17, 18, 19 and 20 here-
 before described bears $S 85^{\circ} 18' W$.
 In order to determine length of
 closing line set meander cor
 and flag as follows.
 Measure a base line $N 7^{\circ} 30' E$
 10.00 chs to a point whence the
 flag bears $S 58^{\circ} 22' W$ from the
 flag the north end of base bears
 $N 58^{\circ} 22' E$;
 but it was impossible on account
 of river to obtain longer base line.
 Therefore the angles taken in order
 of measurement are respectively
 $102^{\circ} 12'$, $50^{\circ} - 52'$ and $26^{\circ} 56'$, their
 sum being 180° . We then com-
 put. dist as follows.
 $\log \sin 50^{\circ} 52' = 9.889682$
 $\log 10.00 = \frac{1.0000000}{10.889682}$
 $\log \sin 26^{\circ} 56' = \frac{9.456054}{1.233628}$
 $\log \text{required dist} = 1.233628$
 Required dist is therefore 17.72 chs.

Subdivisions of T20S R16E

log required dist = 1.233628

log cos 4°42' = $\frac{9.898537}{11.232165}$

log bearing
bearing of closing dist is therefore 17.07 deg.

log sin 4°42' = $\frac{8.913488}{11.232165}$

log southing = $\frac{10.147116}{11.232165}$
southing of closing dist is therefore 1.80 deg.
 $16.80 \text{ deg} + 44.43 \text{ deg} + 17.07 \text{ deg} = 78.40 \text{ deg}$,
which is dist across N 6 deg of sec. 20.
Land rolling.

Soil sandy, 2nd and 3rd rate.

Timber cottonwood on 0.50 acs.

Rolling land on 16.90 acs.

Sept-30 1898: At 9th 00 a.m. I left
on set off 39°05' N on the but are
2°57' S on the decl are and de-
termine a true meridian with
the solar at the cor of secs 16, 17
20 and 21.

Then I ran.

No 03 in but sec 16 and 17

From cor of sec 16, 17, 20 and 21

John Peat's house bears N 37° E

Barn bears N 45° E.

Ran over rolling sand flat.

Large wash drains west.

Irrigation ditch 3 lbs wide flows N.E.

Since $\frac{1}{4}$ all cor will fall in river
and can not be set, therefore at
this point we set a sand stone
12 x 8 x 6 ins 8 ins in the ground
for a witness cor. to $\frac{1}{4}$ sec cor
marked W.C. $\frac{1}{4}$ or 1.49 acs dist marked
W.C. $\frac{1}{4}$ S-16 B.T.

A cottonwood 12 ins diam
bears S 13° W 1.49 acs dist marked
W.C. $\frac{1}{4}$ S-17 B.T.

3045' fence bars E and W.

Subdivisions of T 20 S or 16 E.

- 31.00 Enters land claimed by R. B. Thompson.
Left bank of Green River.
Set a sandstone 14 x 8 x 5-6 ins
11 ins in the ground for meander
cor of fract sec 16 and 17; marked
N.C. on N face with 4 grooves
on E face. from which,
A. Cottonwood 14 ins diam bears
 $S 88^{\circ} E$ 1.18 chs dist marked
T 20 S or 16 E S 16 N.C. B.T.
B. Cottonwood 12 ins diam bears
 $S 34^{\circ} E$ 1.8 chs dist marked
T 20 S or 16 E S 16 N.C. B.T.
From meander cor R.B. Thompson's
water wheel has $S 36^{\circ} 30' W$ 57.00
chs dist.
Since it is impossible on account
of river to chain further on true line
we run on offset line in
sec 16 as follows.
From meander we run East
1.00 chs, hence North $0^{\circ} 0' 3''$ or 10.75 chs
(At 9.00 chs R.B. Thompson's bar
bears $S 88^{\circ} E$ 5.00 chs dist.)
Then west 1.00 chs to a point
on left bank of Green River
41.75 chs North $0^{\circ} 0' 3''$ or 8 cor of sec
16, 17, 20 and 21.
40.00 Cor falls in river and could
not be set.
41.75 Left bank of Green River.
Set a sandstone 14 x 12 x 4 ins
10 ins in the ground for meander
cor of fract sec 16 and 17
marked N.C. on S face with
4 grooves on E face; dug a
pit 36 x 36 x 12 ins 8 ft N of
stone and raised a mound of
earth 4 ft base 2 ft high N of cor.
Since we contained $N 0^{\circ} 0' 3''$ or
on a true line set sec 16 and 17

Subdivisions of T 20 S 9 16 E.

- 42.00 From this point R.B. Thompson's Cabin bears N 77° 30' E 5.50 chs dist.
- 45.00 Enters Laramie field.
- 52.10 Corner of fence bears west and S.E. Laramie field.
- 57.20 Enters cottonwoods grove.
- 67.00 Since cor of secs 8, 9, 16 and 17 falls on sand bar and may be destroyed in time of high water, we set a cottonwood post 3 ft long 4 ins square 24 ins in the ground for a witness cor to cor of secs 8, 9, 16 and 17 marked W.C. T 20 S 9 16 E N.E. 1/4 8 16 R 16 E S 16 on S.E.
S 17 on S.W. and
S 8 on N.W. faces with 4 notches on S and E edges; from which a cottonwood 10 ins diam bears N 87° W 29 lbs dirt marked W.C. T 20 S 9 16 E S 17 B.T.
A cottonwood 6 ins diam bears N 22° E 58 lbs dirt marked W.C. T 20 S 9 16 E S 16 B.T.
- 67.50 Left bank of Green River.
Set a sand stone 12x7x6 ins 8 ins in the ground for meander cor of fract secs 16 and 17 marked W.C. on N face with four grooves on E face; from which a cottonwood 10 ins diam bears S 31° W 57 lbs dirt marked T 20 S 9 16 E S 17 M.C. B.T.
A cottonwood 6 ins diam bears N 84° E 22 lbs dirt marked T 20 S 9 16 E S 16 M.C. B.T.
To determine dist across river we triangulate as follows.
Set a flag on line on right bank of river, then measure a base line N 85° 30' E 15.00 chs

Subdivisions of T 20 S R 16 E.

to a point where the flag bears N 50° 05' W, from the flag the East end of base bears S 50° 05' E therefore the angles taken in order of measurement are respectively $85^{\circ}33'$, $44^{\circ}25'$ and $50^{\circ}02'$, their sum being 180° .

We then compute dist across river as follows.

$$\log \sin 44^{\circ}25' = 9.845018\checkmark$$

$$\log 10 = \frac{1.176081\checkmark}{11.021109\checkmark}$$

$$\log \sin 50^{\circ}02' = \frac{9.884466}{11.36643\checkmark}$$

Required dist is therefore 13.70 chs.
 $67.50 \text{ chs} + 13.70 \text{ chs} = 81.20 \text{ chs}$

From flag on chain S 0°03' E 1.20 chs
on sand bar.

$81.20 - 1.20 = 80.00$
 Set a cottonwood post, 3 ft long ^{with washed stone} 4 ins square 24 ins in the ground for cor of secs 8, 9, 16 and 17 marked;

T 20 S 8 on NE

9 16 E 8 16 on SE

8 17 on SW and

8 8 on NW faces with 4 notches on S and E edges; clay pits $16 \times 18 \times 12$ ins in each sec $5\frac{1}{2}$ ft dist and raised a mound of earth. 4 ft base \approx 6 ft high w of cor.

Land ^{sandy} rolling and mountainous. Soil, 2nd and 3rd rate.

Timber cottonwood.

Rolling land on 57.20 chs.
 Mountainous land or heavily timbered land on 22.80 chs.

N 89°59' E on a random line bet secs 9 and 16.

Since it is impossible to chain on account of river we try

Subdivisions of 520 & 916 E.

	angulate as follows. set a flag on line on left bank of river, then measure a true line N 0° 0' in 50.00 chs to a point where the flag bears S 44° 35'-E; from the flag north end of base bears N 44° 35'-W Required dist is therefore Tang 44° 35' x true or 9.84799 $\times 50 = 49.25$ chs.
49.20	Set tang on under cor.
50.00	Since $\frac{1}{4}$ sec cor will fall in river and can not be set, therefore at this point we set tang witness cor to $\frac{1}{4}$ sec cor.
79.88	Intersect N and S line 2 chs N of cor of secs 9, 10, 15, and 16. Hence we run west on a true line bet secs 9 and 16. Over clay and gravel knolls.
9.10	Old wagon road bears N and S.
17.00	Wash drains north.
25.00	Enters dense sage brush and greasewood.
29.00	Enters river bottom, silt in brush.
30.00	Since $\frac{1}{4}$ sec cor falls in river and can not be set, therefore at this point we set a cottonwood post 3 ft long 3 ins square with washed stone 24 ins in the ground for a witness cor to $\frac{1}{4}$ sec cor marked W.C. $\frac{1}{4}$ S 9 on N face, S 16 on S face; dug pits 10x10x12 ins E and W of post 3 ft dist; and raised a mound of earth $3\frac{1}{2}$ ft high N of cor.
30.73	Left hand of lower river. Leave brush. Set a sand stone 14x6x6 ins 10 ins in the ground for

Subdivisions of T 20 S or 16 E.

meander cor. of flood secs
9 and 16; marked N.C. on
or face with 4 grooves on S.
face and raised a mound of
stone 2 ft base 1½ ft high. East
of cor. pits impracticable.

79.98 The cor. of secs 8, 9, 16 and 17
on sand bar below high
waters mark, as described above.
Land mountainous.

Soil clay, gravel and sand,
2nd and 3rd rate.

No timber

Mountainous land or land cov-
ered with dense undergrowth
on 79.98 obs.

Sept 30, 1898; at this cor. or set
off 3° 01' S on the decl are and
at 0° 00' on L.M.T. observe the
sun on the meridian.

The resulting lat is $39^{\circ} 0' 6'' N.$

Since old survey is closed upon
west bank of river or run
west on a true line bet secs
8 and 17

5.50 Left bank of Green River.

Set a cottonwood post 3 ft long
4 ins square, with marked
stone 24 ins in the ground
for meander cor. of flood
secs 8 and 17; marked N.C.
on E, T 20 S on W, R 20 E
S 17 on S and S 8 on N
floods; from which a
cottonwood 12 ins diam bears
 $N 56^{\circ} 45' E$ 50 lbs dirt marked
T 20 S or 16 E S 8 N.C. B.T.
A cottonwood 8 ins diam
bears $S 74^{\circ} W$ 2.14 lbs dirt

Subdivisions of T 20 S R 16 E.

marked T 20 S R 16 E S 17 M.C.B.D.
 From above meander cor
 old fort described in retrac-
 ment of line lot 8 and 17,
 bears S $9^{\circ} 32'$ W 2.25-chs dist.
 $2.25 \times \cos 80^{\circ} 28' =$ bearing of
 closing dist or $2.25 \times .16562 =$
 0.37 chs
 $2.25 \times \sin 80^{\circ} 28' =$ southing of
 closing dist or $2.25 \times .98619 =$
 2.22 chs.
 5.50 chs + 0.37 chs + 71.50 chs = 77.37 chs
 which is dist across N side of sec
 17.
 Land rolling.
 Soil sandy
 2nd and 3rd rate
 Timber cottonwood.
 Heavily timbered on 5.50 chs.

- 1.20 N $8^{\circ} 03'$ or lot secs 8 and 9.
 On sand bar in river bottom.
 Right bank of Green River.
 Set a cottonwood post 3 ft long 4 ins
 square 24 ins in the ground
 for meander cor of fract secs and
 marked N.C. on S.
 T 20 S on N.
 R 16 E S 8 on N and
 S 9 on E faces from which
 a cottonwood 12 ins diam bears
 N $12^{\circ} 30'$ W 7.5 chs dist marked
 T 20 S R 16 E S 8 N.C. B.D.
 A cottonwood 10 ins diam bears
 N $12^{\circ} E$ 7.4 chs dist marked
 T 20 S R 16 E S 9 N.C. B.D.
 Enters heavy cottonwood timber.
 Live timber. Enters dense
 chick brush.
 Dead brush ascend.
- 2.400
- 3.9.30

Sub-divisions of 920 S. 81 G.E.

40.00	To top of brush trees S.W. and N.E. Set a sandstone 18x12x6 ins 12 ins in the ground for cor. sec. cor. marked $\frac{1}{4}$ in on base and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high in of cor. Pits impracticable. There are clay knolls and hollows draining south easterly. Foot of bluff bears E and W. Set a sandstone 18x10x6 ins 12 ins in the ground for cor of secs 4, 5, 8 and 9 marked with 5 notches on S and 4 notches on E edges and raised a mound of stone 2 ft high base $1\frac{1}{2}$ ft high in of cor. Pits impracticable. Land mountainous soil sand, gravel and clay. 2nd and 3rd rate. Timber cottonwood. Heavily timbered land on 22.80 chs. Mountainous land on 80.00 chs.
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Since it is impossible on account
of abrupt ledges to run & set
on a random line from cor
of secs 4, 5, 8 and 9 we run
our random offset line as
follows.

From a point 30.00 chs S $0^{\circ}03'E$ of
cor of secs 4, 5, 8 and 9 we run
East a dist of 80.00 chs, Then
 $N 0^{\circ}03'W$, 30.04 chs to a point 4 chs
East of cor of secs 3, 4, 9 and 10
The course of the N leg of sec 9
is therefore $5.89^{\circ}58'W$ and dist is
79.96 chs.

From the cor of secs 3, 4, 9 and 10
we run on our offset line

Subdivisions of T 20 S R 16 E.

a follows.

South, 30 chs., thence 88° 58' or 39.98 chs.
to a point on gravel bank, thence
north 26.96 chs to a point at the
foot of perpendicular ledge 60 ft high,
 $30.00 - 26.96 \text{ chs} = 3.04 \text{ chs}$ which is
distr - south of true corner point
for $\frac{1}{4}$ sec cor.

^{39.98}
At this point 3.04 chs south of
true cor point we set a sandstone
18x14x4 ins 12 ins in mound of
stone, (impossible to dig on account
of rocks) for a witness cor to
 $\frac{1}{4}$ sec cor marked W.C. $\frac{1}{4}$ on N
face and raised a mound of
stone 2 ft base $\frac{1}{2}$ ft high N of cor.
Pits impracticable.

We then return to the point
26.96 chs south of witness cor and
continue on offset line 88° 58'.
At 3.00 chs leave bank enter clay
and gravel banks. Draining S.E.
At 79.96 chs we run north a
dist of 30 chs where we
intersect the cor of secs 4, 5, 8 and 9.
Land mountainous.

Soil gravel and clay.
3rd rate.

Mountainous land on 79.96 chs.

Knowing from previous retrac-
ments of previously surveyed
subdivision lines, that it will
be necessary to set closing corners
against our own work we
run west on a true ^{line} but sees 5
and 8. Along south side of
clay and shale rock ridge.

^{40.00}
Head of wash drains S.E.

Set a sandstone 14x12x6 ins 10 ins

Subdivisions of T 20 S or 16 E.

in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face; dug pits $18 \times 18 \times 12$ ins E and W of stone. 3 ft dirt and raised a mound of earth $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft high N of cor.

Since it is impossible on account of steep mountain side to chain further on true line we run our offset line as follows from the $\frac{1}{4}$ sec cor described above.

South 80.00 chs, Thence west 40.00 chs, Thence north 80.00 chs. (Ascend over gravel bench sloping south. At 23.50 ch foot of rocky point slopes S.E. (second to point above mentioned) 40.00 chs + 40.00 chs makes

- 80.00
Set a sand stone $20 \times 12 \times 8$ in 15 ins in mound of rock. (impossible to dig on account of rocks) for cor of secs 5, 6, 7 and 8 marked with 5 notches on S and E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high W of cor.

Pits impracticable.

Land mountainous.

Soil clay and gravel mixed with rocks.

3rd and 4th rate.

No timber.

Mountainous land on 800.00 chs.

Sept 30 - 1898.

Since it is impossible to chain further on account of abrupt ledges we run on a random offset line

Subdivisions of T20S R16E.

from the cor of secs 5, 6, 7 and 8 as follows.

South 30.00 chs, thence west 78.00 chs, thence north 37.15 chs to a point 4 lbs west of witness cor to cor of secs 1, 6, 7 and 12 heretofore described.

The course of the north boundary of sec 7 is therefore $N 89^{\circ} 56' E$ and dist is 77.96 chs.

From witness cor to cor of secs 1, 6, 7 and 12, which is 2.75 chs south of true cor point we run our offset line as follows, it being impossible to chain on true line on account of abrupt ledges.

South 27.25 chs, thence $N 89^{\circ} 56' E$ 37.96 chs - thence north 30.00 chs to a point 37.96 chs $N 89^{\circ} 56' E$ of true point for cor of secs 1, 6, 7 and 12.

37.96 Set a sandstone 14x9x4 ins 10 ins in mound of rock (impossible to dig on account of rock.) for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor.

Pits impracticable.

Since true line runs along south side of high rocky ridge we run our offset line as follows, from $\frac{1}{4}$ sec cor.

South 30.00 chs, thence $N 89^{\circ} 56' E$ 40.00 chs, thence north 30.00 chs to a point 77.96 chs $N 89^{\circ} 56' E$ of true point for cor of secs 1, 6, 7 and 12 where we.

- 77.96 Intersect cor of secs 5, 6, 7 and 8.
Land mountainous.

Subdivisions of 720 & 916 E.

Soil rocky and clay.

3rd and 4th rate.

No timber.

Mountainous land on 77.86 elev.

Alt 1-1898: At 94.00 m a m. lmt.
we set off $39^{\circ}07'$ N or the lat are
 $3^{\circ}21'8$ on the decl are and determine a true meridian with
the solar at the cor of secs 4, 5,
8 and 9.

Hence we run.

$N 0^{\circ}03'$ or on a random line
bet secs 4 and 5.

40.00

Set tiny $\frac{1}{4}$ sec cor.

79.81

Intersect N 4dy of Tl at the
cor of secs 4, 5, 32 and 33 therefore
described.

Hence we run

$S 0^{\circ}03'E$ on a true line bet secs
4 and 5.

Descent abruptly.

2.41

Bottom of steep gulch drains $S 10^{\circ}E$.
Ascend.

26.00

Tl of rough brush sloping south.

38.64

Tl of black shale ledge 20 ft high
descend.

39.81

Set a sand stone $14 \times 10 \times 4$ ins 10 ins
in the ground for $\frac{1}{4}$ sec cor, marked
 $\frac{1}{4}$ on its face and raised a
mass of stone 2 ft base $\frac{1}{4}$ in high
of cor. Bits impracticable.
descend.

40.60

Bottom of main canyon wash
drains $N 80^{\circ}E$. Ascend.

abruptly.

61.00

Tl of rocky ridge bears E and W.
descend abruptly.

62.50

The cor of secs 4, 5, 8 and 9.
Land mountainous.

79.81

Subdivisions of T 20 S R 16 E.

Soil clay and gravel mixed with rocks.

3rd and 4th rate.

No timber.

Mountainous land on 79.81 chs.

From the cor of secs 5, 6, 7 and 8 previously set by us we run N 0° 03' W on a random line bet secs 5 and 6.

Since it is impossible to chain on account of precipitous ledge we triangulate as follows.

Set a flag on line on top of ridge, then go to a point 30.00 chs 80° 3' E of cor of secs 5, 6, 7 and 8, from which we measure a base line 189° 57' E 40.00 chs to a point whence the flag bears N 37° 01' W; from the flag the east end of base line S 37° 01' E and the required dist is therefore tang 53° 02' x base or $1.32865 \times 40 = 53.15$ chs.

53.15 chs - 30.00 chs = 23.15 chs which is dist from cor of secs 5, 6, 7 and 8 to flag.

Temp $\frac{1}{4}$ sec cor falls in triangulation and is not set.

We then go to cor of secs 5, 6, 31 and 32 on N side of ridge heretofore described, from which flag on ridge bears S 0° 03' E. We then measure a base line 189° 57' E 25.40 chs. (impossible to obtain longer base on account of ledges) to a point whence the flag bears S 24° 09' W; from the flag the east end of base bears N 24° 09' E and the required dist is therefore tang 65° 48' x base or 22.2510

Subdivisions of 920 S of 16 E.

	$X 25.40 = 56.52$ chs. 56.52 chs + 23.15 chs makes.
79.67	Intersect N body of Td at the cor of secs 5, 6, 31 and 32. Lat 1-1898 at this cor we set off $3^{\circ} 24' S$ on the decl arc and at 0400 m l.m.t. observe the sun on the meridian. The resulting lat of the N body of the Td is $39^{\circ} 0' 5'' N$. From the cor of secs 5, 6, 31 and 32 we run $S 0^{\circ} 03'E$ on a true line bet secs 5 and 6.
0.24	Td of ledge 25 ft high. descend abruptly.
0.50	Foot of ledge .. descend.
18.86	Main canyon wash drains S.E. ascend.
39.67	Head of gulch drains N.E. Set a sandstone 20 x 14 x 6 ins 15 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ in on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high in front of cor. Pits impracticable.
39.97	Foot of cliff 40 ft high. ascend abruptly to
56.52	Td of high rock ridge runs E and W. (See triangulation) descend abruptly.
- 79.67	Take cor of secs 5, 6, 7 and 8. Land mountainous. Soil rocky. 4th rate. no timber. Mountainous land on 79.67 chs.

Knowing from previous retracements that it will be necessary to set closing corners

Subdivisions of Twp 5 of 16 E.

on Green River guide meridian when closing old road upon west boundary of Twp. on sec 30 to $\frac{1}{4}$ sec cor bet secs 18 and 19 heretofore described and run west on a true line bet secs 18 and 19.
descend gradually.

13.00 Foot of steep blue spur sloping east.
Ascend abruptly.

39.72
40.28 Intersect Green River guide meridian 65 lks south of cor of secs 13, 18, 19 and 24 heretofore described. Set a small stone 10 x 8 x 6 ins 12 ins in the ground for closing corner of secs 18 and 19 marked C.C. on E face with 3 grooves on N and S faces and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high east of cor.
Pits impracticable.

No destroying all marks on cor of secs 13, 18, 19 and 24 pertaining to secs 18 and 19.

Land mountainous.

Soil sand and clay.

3rd and 4th rate.

No timber.

Mountainous land on 40.28 ch.

From the $\frac{1}{4}$ sec cor bet secs 7 and 18 heretofore described we run west on a closing line bet secs 7 and 18. descend.

Wash drains S.E. ascend.

Top of brush bank N.W. and S.E. descending

Bottom of wash drains S.E. ascending.

28.80 Top of ridge bears N.W. and S.E.

1.71

3.00

20.00

23.71

28.80

Subdivisions of T2. S8. 16 E.

4071

Intersect Green River guide
meridian 93 lbs south of cor
of secs 7, 12, 13 and 18 heretofore
described.

Set a sandstone 16x12x6 ins
11 ins in the ground for
closing cor of secs 7 and 18
marked C.C. on E face with
2 grooves on N and 4 grooves
on S faces and raised a
mound of stone 2 ft base
1 $\frac{1}{2}$ ft high E of cor.

Pits impracticable.

We destroy all marks on
cor of secs 7, 12, 13 and 18
pertaining to secs 7 and 18.
Land mountainous.

Soil sand and clay.
3rd rate.

No timber.

Mountainous land on 4071 chs.

Knowing from previous retracements
that it will be necessary to set a
closing cor for secs 7 and 8
we run

North on a closing line bet
secs 7 and 8 starting from
old $\frac{1}{4}$ sec cor heretofore de-
scribed.

descend gradually.

10.00

Bottom of hollow, drains
S.E. Ascend

3.00

Foot of rock spur slopes S.E.
Ascend abruptly.

41.73

Intersect E. and W. line 328
chs East of cor of secs 5, 6, 7
and 8 heretofore described.

Set a sandstone 20x10x8 ins
15 ins in around of rock

Subdivisions of 920 & 916 E.

(impossible to dig on account of rocks) for clearing cor. of secs 7 and 8 started C.C. on S with 5 prisms on S and E faces and raised a mound of stone 2 ft base 1½ ft high S of cor. Pits impracticable.

Land mountainous, etc., etc.

Soil sandy and rocky.

3rd and 4th rate.

No timber.

Mountainous land on 41.73 acs.

Net 1-1598,

In notes of rethacs, and of subdivisions see end of this book

Meanders $\hat{\ell}$ 208 or 16 E.

Meanders of left bank of Laramie
River up stream.

We commence at the meander
end of fract seas 31 and 32 on the
S bank of the $\hat{\ell}$ J. heretofore de-
scribed.

At this cor., Oct 2-1898 we set
 $\hat{\ell}$ $39^{\circ} 02'$ N on the lat arc $3^{\circ} 43' 8''$
on the decl arc; and at 8:00 m.
a.m. L. M. L. determine a true
meridian with the solar.

Then we run with meanders
in seas 32, through brush and
timber

$N 3^{\circ} 30' E$ 6.00 chs. At 2.80 chs east bank,

of large flat wash ab. 3' ss.

$N 38^{\circ} W$ 14.00 chs. West bank of wash
at end of course.

$N 59^{\circ} W$ 21.00 .. At 13.00 chs cross through
20 lps wide draws S.

$N 60^{\circ} W$ 5.00 .. Still in brush.

$N 31^{\circ} W$ 7.00 ..

$N 02^{\circ} W$ 9.00 .. End of course in road
to ford; west end of ford
bears $N 53^{\circ} W$

$N 14^{\circ} 30' E$ 2.00 .. Still in timber and brush.

$N 28^{\circ} 45' E$ 2.00 ..

$N 17^{\circ} 15' E$ 3.30 .. Bank 15 ft high.

$N 22^{\circ} 00' E$ 23.00 .. From end of course
Chas Meyers water wheels
bear $N 5^{\circ} E$ > 5 miles dist.

$N 23^{\circ} 15' E$ 6.00 ..

$N 25^{\circ} 38' E$ 2.75 .. To meander cor of
fract seas 28 and 32.

Land rolling.

Soil alluvial.

1st and 2nd rate.

Timber cottonwood

Heavily timbered land or land
covered with dense undergrowth 10.00 chs

Meanders T 20 S R 16 E.

Meanders of left bank of
Gran River up stream.

Fence in sec 29

Through scattering timber and
brush.

N $25^{\circ} 00' E$ 3.00 chs. Horse house
opposite end of
Enter orchard. deer tree.

N $15^{\circ} 30' E$ 16.00. At 3.00 chs leave orchard
At 12.00 " Fence bears
E and W.

Enter brush at end of
course.

N $20^{\circ} 30' E$ 41.00. At 18.00 chs mouth of
large wash drains N.W.
Foot of blue clay bluff
at end of course.

N $61^{\circ} 30' E$ 4.50 To meander cor of first
secs 2 & and 29

Land rolling and mountainous
Soil sand and clay.

2nd and 3rd rate.

Timber scattering cottonwood.
Dense undergrowth on 45.00 chs.
Mountainous land on 4.50.

Lat 2-18° 8'. - At this cor we set off
 $3^{\circ} 47' S$ on the decl arc and at
0° 00' m lat, & observe the sun
on the meridian.

The resulting lat is $39^{\circ} 0' N$.

Fence in sec 28

clay bluffs.

N $61^{\circ} 45' E$ 4.60 chs. On bluff 100 ft high.

N $40^{\circ} 30' E$ 12.00. At 4.00 chs descend from
bluff to water level
end of course at
mouth of wash drains
west, Enter brush.

Meanders T 20 S R 16 E.

Meanders of left bank of
Greas River and stream.

N 11° 30' W 8.00 chs

N 44° 11' W 3.30. To meander cor of
fuel secs 21 and 28
Land mountainous.

Soil clay and sand.

Timber scattering cottonwood
mountainous land or land covered
with dense undergrowth on 27.80 chs.

Plane in sec 21.

From meander cor North end of
island bars N 55° 30' W about 5.00 chs
dist. South end bars S 12° 30' W 17.00 chs dist.

Through brush and scattering timber.
N 40° 30' W 8.00 chs

N 12° W 10.00. Still in brush.

N 6° 30' W 5.36. To meander cor of
fuel secs 20 and 21.

Land rolling.

Soil sandy loam.

1st and 2nd rate.

Timber scattering cottonwood.

Dense undergrowth on 23.36 chs.

Plane on sec line bt sec 20 and 21
through brush and timber.

N 0° 03' W 45.80 chs. At 18.80 leave
brush still in scatter
plane 1st - f. leaving timber.

Soil sandy loam. At 42.23 leaves plane
1st and 2nd rate from water wheels bars

East and west. Leav timber.

45.80 To the meander
cor of fuel secs 20 and 21.

Land rolling.

Soil sandy loam

18.80
37.00

Meanders 9208 R 16 E.

Meanders of left bank of
Green River up stream.

1st and 2nd rate.

Timber scattering cottonwoods on 42.3 acs.
Dense undergrowth on 18.00 acs.

Distance in sec 20

N 56°W - 13.00 acs. At 3.40 acs irrigation ditch
crosses N and S. Cross fence
at end of coarse bars N and S.
N 74°30'W 6.00 " Enters brush at end of coarse
N 40°50'W 4.04. To meander cor of flood
secs 17 and 20.

Land mountainous and rolling
Soil sandy loam.

2nd and 3rd rate.

Timber scattering cottonwoods
Mountainous land or land covered with
dense undergrowth on 23.04 acs.

Oct 2-1898.

Oct 3 1898.: At the meander cor of
flood secs 17 and 20 we set off 38°05' N on
the bar arc - 4°06' S on the ditch arc
and at 8.40 on a m. fm. t. we de-
termine a true meridian with the
solar.

Distance we run with meanders
is sec 17.

Through dense brush and scatter-
ing timber.

N 7°30'E 10.00 acs.

N 44°30'E 17.00 " At end of coarse East-
end of coarse bars N 41°20'W.
west-end bars N 66°W.

N 22°38'E 9.70.. At 1.60 the plane
of soil R.B. Thompson's
water wheel.
At ~ 3.00 large wash.

Meanders 9208 or 16 E.

Meanders of left bank of
Great River of stream.

drains from 2 to 11.

9.70 To meander cor.

8 feet sec 16 and 17

Land rolling.

Soil sandy loam.

2nd rate.

Timber cottonwood.

Dense undergrowth on 36.70' chs.

Thence in sec 16.

Through dense brush.

N 6° 30' E 6.00 chs

N 8° 00' W 4.80 .. To meander cor

8 feet sec 16 and
17.

Land level.

Soil sandy loam.

1st rate.

No timber.

Dense undergrowth on 10.85' chs.

Thence in sec 17.

Through scattering brush.

N 38° W 11.00 chs. At 9.50' cross

forest grass & under.

N 7° W 14.00. At 6.00' enters heavy
timber.

N 61° 45' E 5.00 ..

N 77° 04' E 4.20. To meander cor of
8 feet secs 16 and 17

Land rolling.

Soil sandy.

2nd rate.

Timber cottonwood.

Heavily timbered land on 12.20 chs.

1/20
11.00

Meanders 9 20 8 or 16 E.

Meanders of left bank of
Green River up stream.

Distance in sec 16

Oct 3-1898. At 0⁰ 00 m. l. m. sky
overcast, impossible to take lat
observation.

Ran through heavy timber.

N 64° E 6.00 chs Sandy sand 10 ft
high.

S 82° 30' E 12.00 "

S 88° 15' E 11.00 " Small green island
Yerite end of course.

N 83° 15' E 9.00 " At 1.50 by cabin 0°
Elos to right. Not
occupied. Dense
heavy timber. Enters
sage brush and greasewood

N 71° 00' E 5.00 "

N 38° 54' E 11.48. To meander con-
j of fract secs 9 and 16.

Land level and rolling.

Soil sandy loam.

1st and second rate.

Timber cottonwood.

Heavily timbered on 30.50 chs

Heavily timbered or dense under-
growth on 54.48 chs.

Distance in sec 9,

over clay flat, through scattering
greasewood.

N 56° E 4.00 chs

N 80° 30' E 9.00 "

N 55° 30' E 15.00 "

N 52° 10' E 7.70 " At 4.00 chs con-

mouth of large wash

- drains north.

7.70 to meander

Meanders 9° 20' S or 16° E.

meanders of left bank of
Green River up stream.

cor of flood sec
9 and 10.

Land rolling.

Soil clay.

2nd and 3rd rate.

No timber.

Rolling land on 35.70' chs.

Thence in sec 10.

over rough bluffs. Banks 25'
ft high.

N 40° 80' E 28.00' chs Enter cottonwood

trees at end of course.

Leave bluffs.

N 25° 30' E 9.00 "

N 26° E 11.00 " At 10.50 cross wash
drains west.

N 16° E 13.00 " At end of course enter
thick brush.

N 67° E 6.00 " Leave brush and
heavy timber at end
of course.

N 54° 30' E 11.00 ..

N 13° 00' W 2.63 To meander cor of
flood sec 3 and 10

Land mountainous.

Soil clay and sand.

2nd and 3rd rate.

Timber cottonwood on 39.00' chs.
Mountainous land or land
covered with dense undergrowth
on 80.63' chs.

Thence in sec 3.

over sandy bank.

N 21° 30' W 13.00' chs

Manders T 20 S R 16 E.

Manders of left bank of
Green River up stream.

N $4^{\circ} 30' W$ 18.00 chs Bank gravel and
sand 10 ft high.

N $38^{\circ} 30' E$ 21.00 " At 12.00 ch mouth
of large wash drains
from S.E. to N.W.

N $11^{\circ} 30' W$ 17.00 "

N $79^{\circ} 30' W$ 12.00 "

N $38^{\circ} 30' W$ 4.00, At 1.00 ch wash drains
from N.E. to S.W.

N $31^{\circ} 30' E$ 3.00 " Enters brush at beginning
of course.

N $3^{\circ} E$ 9.00 " To meander eve of
gravel sees 3 and 34
on the N. body of the D.
hereby are described.

Land mountainous.

Soil sandy.

2nd and 3rd rate.

No timber.

Dense undergrowth on 12.00 chs.

Mountainous land on 97.00 ".

Cost 3 - 1898.

Meanders 9208 & 16E.

meanders of right bank of
Green River down stream.

We commence at the meander
end of first sec 3 and 34 on the
N bank of the F of heretofore un-
scribed.

Lat 4.1098. At 9:00 a.m. L.M.T.
we set off $39^{\circ}07'$ N on the lat arc
 $4^{\circ}30' S$ on the decl arc and de-
termine a true meridian with
the solar at the above men-
tioned meander end.

I have no run with
meanders in sec 3.

Along steep slide rock.

S $84^{\circ}30'E$ 2.60 chs. From beginning
of course north end of
island bears $N 58^{\circ}E$
about 5.00 chs dist.
Enters brush at end of
course.

S $12^{\circ}E$ 13.00 "

S $38^{\circ}30'E$ 8.00. From end of course
South of island bears
 $N 34^{\circ}E$ about 6.00 chs
dist.

S $72^{\circ}30'E$ 17.00. At 3.00 cross mouth
of large canyon wash
draining from west to
east.

Steep riffle just
below island.

S $5^{\circ}W$ 8.00. Still in brush.

S $47^{\circ}45'W$ 10.00. Leaves brush at end of
course.

S $15^{\circ}30'W$ 8.00. From end of course
N end of island bears
 $N 65^{\circ}E$. about 4.00 chs dist.

S $45^{\circ}W$ 7.00. Under cliff 30 ft high.

S $34^{\circ}30'W$ 6.00.

Meanders of T 20 S 07 16 E.

Meanders of right bank of
Gran River down stream.

S 35°W 9.00 chs.

S 21°55'W 14.72" To meander cor of
fract sees 3 and 10.

Land mountainous.

Soil rocky.

4th rate.

No timber.

Dense undergrowth on 56.00 chs.

Mountainous land on 103.22 chs.

Dense in sec 10.

Cover bank 15 ft high.

S 22 W 14.00 chs. At 10.00 mouth of
rock drains west.

Ed summer water
which about 65 lbs
to left.

From end of course
End of island bars
S 35°E about 12.00 chs
dirt.

S 1°30'W 17.00"

S 21°30'E 7.00" At 6.60 cross old irriga-
tion ditch.

S 1°00'W 6.00" enters broad at beginning
of course.

S 26°30'W 5.00.

S 46°43'W 10.21" To meander cor of
fract sees 9 and 10.

Land mountainous and rolling.

Soil sandy loam.

2nd rate.

No timber.

Mountainous land or land covered
with dense undergrowth on 59.21 chs.

Cat 4-1898: at this cor we set

ff 4°34'S on the decl are and)

Meanders 9 20 8 or 16 E.

Meanders of right bank of
Green River down stream.

at 0°00' m. l. m. t. observe the sun
on the meridian. The result-
ing lat is 39°06' N.

Hence in sec 9.

Through dense brush.

S 53° W 4.00 chs.

S 58° W 4.00 "

S 71°30' W 11.00 "

S 73°30' W 9.00 " From end of course.

Ed Summers Cabin

No 1 bears N 42°30' E

" 2 " N 40° E

" 3 " N 28°30' W

" 4 " N 54° W

" 5 " N 80° W

" 6 " N 85°30' W

No 3 is occupied by

John Pittman.

Rest are vacated.

S 77°30' W 8.00 " From end of course

Cabin No 1 bears N 60°30' E

" " 2 " N 57°30' E

" " 3 " N 44°30' E

" " 4 " N 26°00' E

" " 5 " N 32°30' W

" " 6 " N 58° W

Still in brush.

S 77° W 16.00 "

S 87 W 14.00 " Enters timber at be-
ginning of course.

S 70°30' W 9.00 "

S 58°47' W 9.45 " To meander cor-
of fract secs 8 and 9.

Land rolling.

Soil sandy loam.

2nd and 3rd ratio.

Meanders, 920 s of 16 E.

Meanders of right bank of
Green River down stream.

Tincher cottonwood on 32.45 - chs.
dense undergrowth or heavy
- on 84.45 - chs.

Thence in sec 8.

Through heavy timber.

578°10' or 5.63 chs to meander on of
fract secs 8 and 17.

Thence 39°32' or 2.25 chs to old
stake-marked N.C. on E bank
supposed to be old meander on
of fract secs 8 and 17.

Land rolling

Soil sandy loam.

2nd rate.

Tincher cottonwood.

- Heavily timbered land on 7.88 chs.

Oct 4 - 1898

Meanders 9205 & 16 E.

Meanders of northern portion of island in southern half of sec 32

We commence at the meander end of fract secs 3 and 32 on the S body of the Tj herebefore described, on west bank of island.

Lat 51° 58' S. At this end we set off 39° 02' N on the left bank, 45° 2' S on the dead arc and at 8:00 a.m. L.M.T. determine a true meridian with the solar.

Hence we run with meanders in sec 32.

Through dense brush.

N 31° 45' W 5.00 chs.

N 8° 21' E 13.00 "

N 14° 00' E 15.00, still in brush.

N 64° 30' E 12.00, enters timber at beginning of course.

S 49° 00' E 200, bank 8 ft high.

S 8° 00' E 8.00,

S 12° 30' W 5.00,

S 40° 30' E 7.00,

S 27° 00' E 7.50, still in brush and timber.

S 87° 00' E 10.00, from end of course
E Game's Cabin bears

S 68° 00' E 2.65 chs dist.

N 48° 30' E 5.50, leave timber at end of course.

S 6° 15' E 8.00, enters timber at end of course.

S 25° 00' E 6.80, to meander end of
fract secs 3 and 32 on
S body of Tj herebefore
described. E bank of
island.

Land rolling.

Soil sandy loam.

1st and 2nd rate.

Timber cottonwood on 63.90 chs.

Dense undergrowth on 104.90..

Lat 51° 58' 18.85

Secundress T 20 S R 16 E.

General Description.

This township contains all classes of land most of which is suitable for agricultural or grazing purposes if properly irrigated.

The soil in bottom land along Green River consists in general of a sandy loam capable of producing good crops when properly irrigated. The south-western portion of the T. F. consists of low rolling sand hills, a large portion of which would make good land for agricultural purposes if properly watered.

The north eastern portion of the township is broken up by the so called "Boot cliffs" which rise perpendicular from the level of the river bottom to a height of 300 ft.

The cliffs are composed in general of a reddish brown sand stone.

A high rocky ridge extends across the northern portion of the T. F. from west to east, at the eastern end of which the famous "Garrison Butte" is situated.

This butte rises perpendicular from the river bottom and is about 450 feet above the surrounding country.

It is composed of red sand stone.

The south western portion of the township consists of low clay hills and gravel ridges and the soil on the west side of the river contains considerable alkali.

Abundant water for

Meander T 20 S R 16 E

irrigation purposes is furnished by Green River which runs through the township from N.E. to S.W.

A small ditch has been constructed on the west bank of river but this furnishes water for only a limited amount of land.

A high line canal could be taken out in the vicinity of "Garrison Butte" at a moderate cost that would water all the south eastern portion of the T.P. as well as townships adjoining on the south and south east.

There is ^{an} abundant growth of large cottonwood timber along the river bottom.

There are no indications of mineral within the township except a small vein of coal visible along the top of ridge running across north side of T.P. No developments have been made on this vein. Large deposits of coal are found in the township adjoining to the east.

A large island is situated in the southern portion of sec 32 which extends into sec 3 of T 21 S R 16 E.

The island is covered with a dense growth of cottonwood timber except about 40.00 acres which has been cleared and is claimed by Ephraim Gann now residing in

Meander T 20 S R 16 E.

a cabin situated on island
in sec 32.

His improvements amount to
about \$200.

The claims of Chas A Berry
and Clay M Getty situated
in the southern portion of
sec 9 and the S.E. portion of
sec 8 are now claimed by
Ed Summers who resides at
Green River.

The old Mormon settlement
consisting of six cabins
situated in the southern
portion of sec 9 is abandoned
and the cabins are all vacant
except one which is now
occupied by John Pittman
who has a claim in the
south western portion of sec 9.

The claim of Carey J Willis
has been transferred to Chas
Myres who now resides
on the land which is situated
in secs 32 and 33. Improvements
have been made in
the way of buildings, orchards
fences etc to the amount
of \$2500.

The claim of A. J. Green
deceased, is now claimed
by L. H. Valentine and
Geo Ross and is situated
in the S.W. portion of sec 21.

About \$200 worth of improve-
ments have been made
by each party.

R. B. Thompson has a
ranch in the western
portion of sec 16 upon
which he has made

Meander 9205 & 16 E

about $\frac{1}{2}$ mi north of improvements.

Clay McGetty also has a ranch in Sec 29 on old survey.

No water can be found with in the township except that furnished by Green River.

Alfred B Lewis
David H Blasenbach,
U.S. Day Surveyor.

No officer authorized to administer oaths other than myself, being available, without great inconvenience, delay and expense, I administer the required preliminary oaths.

David H Blasenbach
U.S. Surveyor.

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Tracement of Subdivisions of T20 S or 16 E.

Retracement commenced Sept 18-1898, and executed with a W and L.E. Burley light mountain transit with solar attachment for a description of which see the book.

Sept 18 1898 at 2:00 p.m.
L.M.T. we set off $39^{\circ}0'2''$ N
on the lat arc $1^{\circ}38'N$ on the
decl arc and determine a
true meridian with the solar
at the standard cor of secs
31 and 32 on the 8th day of
the 7th hitherto described.
Hence we run
North by secs 31 and 32.
Over low hills.

- | | |
|-------|--|
| 13.25 | Irrigation Canal drains S.E.
10.00 wide. |
| 15.00 | Fence bears N.W. |
| 18.00 | Enters cottonwood grove. |
| 18.80 | Road bears N.W. and S.E. |
| 33.54 | Fence bears E and W. |
| 39.00 | Cabin bears west 2.00 chs. |
| 40.00 | North side of cotton wood grove
leaves timber. |
| | Two $\frac{1}{4}$ sec cor can be found. |
| 49.00 | Fence corner 10 chs west,
one bears north the other west. |
| 57.00 | Fence bears N.E. and S.W. |
| 57.50 | Irrigation Canal 12 chs wide
drains S.W. |
| 60.00 | Road bears N.E. and S.W. |
| 78.80 | Fall 8 3 chs west of old cor to
secs 29, 30, 31 and 32 which is
an sand stone $12 \times 8 \times 8$ in above
ground marked and witnessed
as described by the Surveyor
General. The course of this
line is therefore $N036'E$.
Land rolling. |

Retacement of subdivisions of T 20 S 08 16 E.

Soil sand and clay.

sand and 3rd rate.

Tincher cottonwood on 22.00 chs
rolling land on 78.80 chs.

From the cor of secs 29, 30, 31 and
32 we run east bet secs
29 and 32.

2.00 Road bears N and S.

15.00 Road bears N.E. and S.W.

21.50 Irrigation canal drains S.W.
12 chs wide.

22.00 Fence bears N.E. and S.W.

39.00 Enters cottonwood grove.

40.00 No old stake for 1/4 sec we
can be found.

46.25 Road bears N and S.

47.70 No old meander cor. of first
secs 29 and 32 can be
found. At this point which
is on the right bank of Green
River we set a flag for
the purpose of triangulating
from left bank of river.
Land rolling.

Soil sand and clay.

Tincher cottonwood on 8.70 chs.

From the cor of secs 29, 30
31 and 32 as found we run
north bet secs 29 and 30.

Clay flat.

40.00 No 1/4 sec cor can be found.

54.15 Low gravel ridge bears E and W.

57.50 Enters clay flat.

70.00 Top of gravel bench ascend.

72.00 Top of bench bears N.E. and S.W.

87.17 Full 47 chs west of old cor
of secs 19, 20, 30 and 29

Retracement of Subdivisions of T 20 S R 16 E.

which is a sand stone 10x3
x 10 ins above ground marked
and intersected as described
by the Surveyor General.

The course of this line is
therefore N. 20° E.

Land level and rolling.
soil clay and gravel
2nd and 3rd rate.

No timber.

Level or rolling land on 80.17 mrs.
Sept 18-1898.

Sept 19 1898. At the cor of secs
19, 20, 29, and 30 as found we
set off $38^{\circ} 0' 4''$ N on the last
arc, $1^{\circ} 20'$ N on the steel arc
and at 8:40 a.m. L.M.T.
determine a true meridian
with the solar.

Distance on road.

East bet secs 20 and 29,

Note: From this cor Clay M.
Betty's house bears $8^{\circ} 57' E.$

East side of Grand Ranch.

Diamond.

Entire clay flat.

wagon road bears N. and S.

Fall 40 lks north of old $\frac{1}{4}$ sec
cor which is a sand stone
12 x 5 x 10 ins above ground
plainly marked but no
jets - are visible.

From this point Clay M.
Betty's house bears $8^{\circ} 27' 21'' E.$

Fence bears N and S.

Irrigation canal also south
15 lks wide.

Right bank of Green River
No meander cor to find

28.50

29.40

30.50

40.02

61.40

72.70

C. 74.88

Retracement of Subdivisions of 520 & 9165

secs 20 and 29 can be found.
At this point we set a flag
for the purpose of triangulating
from East or left bank of
river.

From the cor of secs 18, 20, 29
and 30 as found, we run
north bet secs 19 and 20

North edge of gravel bench
bears N.W. and S.E. ascund.

Foot of bench enters clay flat.

Foot of bench bears N.E. and S.W.
ascund.

Top of bench.

Fall 30 lks west of old 'y' cor
which is a sand stone 12x8
x18 ins above ground marked
and witnessed as described by
the Surveyor General.

Gully drains S.E.

Deep wash drains S.E.

Same wash drains S.E.

Same wash drains S.E. ascund.

Top of bench bears N.W. and S.E.

Fall 50 lks west of old cor
of secs 17, 18, 19 and 20 which
is a sand stone 14x6 x 8 ins
above ground marked and
witnessed as described by
the Surveyor General.

The course of this line is
therefore N^o 21' E.

Land mountainous and
rolling.

Soil sand and gravel.
2nd and 3rd rate.

No timber.

Mountainous or rolling
land on 79.95 chs.

Tracement of subdivisions of T20S R16E.

At the cor. of secs 17, 18, 19 and 20 as found we set off $1^{\circ}16'N$ on the decl. arc and at 0400 m.l.m.t. we observe the sun on the meridian. The resulting lat is $38^{\circ}05'N$.

From the cor of secs 17, 18, 19 and 20 as found we run East bet secs 17 and 20. Gully drains S.E.

30.00 dry gully drains S.E. ascend
33.00 of spur slopes S.E.
35.00 descend.

40.00 at foot of spur enter Green River bottom and dense undergrowth. No cor found. Irrigation canal 12 ft wide drains south.

43.50 44.43 Right bank of Green River. No meander cor of fract. secs 17 and 20 can be found. // we set a flag at this point for the purpose of triangulating from East or left bank of river.

Land mountainous.

Soil gravelly and rocky,
3rd rate,
no timber.

Undergrowth on 4.43 hrs.
Mountainous land on 44.43 hrs.

From the cor of secs 17, 18, 19 and 20 as found we run west bet secs 18 and 19. Gully drains S.E.

12.00

Retracement of Subdivisions of T 20 S R 16 E.

21.80	Wash drains S.E. Second.
23.00	T of of bench bars N.W. and S.E. Second.
35.00	
40.35	Fall 65 ft's south of old $\frac{1}{4}$ sec cor which is a sand stone 14×6 $\times 16$ ins above ground marked and witnessed as described by the Surveyor General. The course of this line is therefore $N 89^{\circ} 14' W$ Land mountainous. Soil gravel 3rd rate, no timber. Mountainous land on 40.35-cls.

From the cor of secs 17, 18, 15 and 20 as found on line
north of secs 17 and 18.

23.10	Gully drains S.E. Second.
25.00	T of of bench bars west and S.E. Second.
29.00	
32.00	Gully drains S.E. Second.
38.95	Fall 40 ft's west of old $\frac{1}{4}$ sec cor which is a sand stone $10 \times 5 \times 8$ ins above ground marked and witnessed as described by the Surveyor General. Second.
42.00	
45.60	Rock wash drain East. Second.
60.00	T of ridge bars E and W Second.
71.00	Gully drains east.
78.20	Deep gully drain east.
79.80	Fall 90 ft's west of old cor of secs 7, 8, 17 and 18, which is a sand stone $14 \times 12 \times 16$ ins above ground marked and witnessed as described by the Surveyor General.

Retacement of sixth divisions of T 20 S R 16 E.

The course of this line is
therefore N 6° 39' E.

Land mountainous.

Soil gravelly and rocky.

3rd and 4th rate.

No timber.

Mountainous land on 2 f. slope.

From the cor. of secs 7, 8, 17 and
18 as found in run.
East set secs 8 and 17.
Ground.

- | | |
|-------|--|
| 10.50 | Stony gully drains N.E. end. |
| 20.00 | Sporadic slopes with drainage. |
| 31.00 | Same wash as above drains
S.E. Ascend. |
| 35.00 | Ridge bears N and S. descend. |
| 38.00 | Gulch drains south. Ascend. |
| 40.22 | Fall 35 ft. with 8 old 1/4 sec
cor which is a sand stone
12 x 5-116 ins above ground
marked and witnessed as
described by the Surveyor
General. |
| 49.50 | Top of steep bluff bears N and
S. descend abruptly. |
| 53.00 | Foot of bluff. Enter Green
River bottom and cottonwood
trees. |
| 71.50 | Fall 48 ft. 1/2 of old stable
marked N.C. on East side
take the same to be old
meander cor of fract. sec
8 and 17. |

The course of this line is
therefore S 8° 57' E

Land mountainous.

Soil gravelly and stony.

3rd and 4th rate.

Timber cottonwood.

Retracement of subdivisions of Tax. & Ordnance.

Heavily timbered over 18.50 acs.
Mountainous on heavily timbered land over 71.50 acs.

From the cor of secs 7, 8, 17 and 18 as above described or run west of secs 7 and 18.

4.00
7.00
31.80
39.99

descend.
wash drain S.E.
wash drain S.E. ascend.
Fall 40 ft south of old 1/4 sec cor which is a sandstone 5x9 x 16 ins above ground marked and witnessed as described by the Surveyor General. The course of this line is therefore N88°26' E Land mountainous.
soil stony and gravelly.
3rd and 4th salt.
no timber.
Mountainous land over 39.99 acs.

146

From the cor of secs 7, 8, 17 and 18 as above described or run north of secs 7 and 8.
descend.

4.60
10.80
17.50
39.93

Bottom of dry gulch drains S.E.
heads west. Ascend.
Top of ridge bears N.W. and S.E.
descend.
wash drains S.E. ascend.
Fall 51 ft west of old 1/4 sec cor which is a sandstone 16x6 x 12 ins above ground marked and witnessed as described by the Surveyor General.
The course of this line is therefore N0°44'E.
Land mountainous.

Retracement of Subdivisions of T 20 S R 16 E.

Soil rocky and gravelly.
3rd and 4th rate.
No timber.

Mountainous land on 39.85 des.
Sept 19-1898

From the corner of Secs. 19, 20, 29 and 30 which
is a sandstone $10 \times 8 \times 10$ ins. above ground
marked and witnessed as described by
the Surveyor General. We run West
on a retracement line betw. secs.
19 and 30 - over rolling hills

40.02 Fall 45 lds. south of bed $\frac{1}{4}$ sec. cor.
which is a sandstone $12 \times 6 \times 8$ inc.
above ground marked and witnessed
as described by Surveyor General

46.00 Wash des C. E.

80.09 Fall 93 lds. south of old corner of Secs.
19, 24, 25 and 30 on Green River Guide
Meridian which is a sandstone $9 \times$
 5×10 ins above ground marked and
witnessed as described by the Surveyor
General - The Course of this line is
true for N $89^{\circ} 20' W$ and distance 80.10 Chs.
Land rolling

Soil sandy 3rd rate

No timber

Rolling land on 80.10 chs -

Alfred B Lewis
David A Blodstone
U.S. Dist Surveyors.

Sept 19
1898 -

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by.....

..... United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of

showing the respective capacities in which they acted:

1. THE CHAIRMAN	2. THE VICE-CHAIRMAN	3. THE SECRETARY	4. THE TURNOVER	5. THE CLOTHES	6. The Chairman
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Chairman.
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Chairman.
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Moundman.
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Moundman.
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Arman.
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Arman.
THE CHAIRMAN	THE VICE-CHAIRMAN	THE SECRETARY	THE TURNOVER	THE CLOTHES	Flagman.

FINAL OATH OF ASSISTANTS.

We hardly wish that we may have

United States Deputy Surveyor, in surveying all
the parts or portions of the

of the said survey, which are represented
in the accompanying field notes as having been surveyed by him and under his direction; and that said survey
has been, so far as respects to the best of our knowledge and belief, well and faithfully surveyed, and the
true monuments established, according to the instructions furnished by the United States Surveyor
General for

Chairman.
Chairwoman.
Moundman.
Moundwoman.
Arman.
Arman.
Fanagan.

Subscribed and sworn to before me this

day of November, one thousand nine hundred and eight. - 189

2000
2001-2
2002

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, , United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for , bearing date of the day of , 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for , the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

..... of the
..... meridian, in the of, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 _____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City Utah October 21st 1897

The foregoing field notes of the survey of ~~The Subdivisions of Meander~~
~~of Township No. 36, Range 16, East of the 10th Meridian~~
~~Periodic.~~ will be

executed by Alfred B. Deering & Daniel A. Blossom
under his contract No. 219, dated November 12th, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Jacob B. Blair
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, _____, has been correctly copied from the original notes on file in this office.

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BOOK A-255

FIELD NOTES

OF THE SURVEY OF THE

Green River Guide Meridian.

West Boundary of

Townships 22nd & 23rd South

Range 16 East

of the Salt Lake Base and Meridian,
State of Utah.

AS SURVEYED BY

Ed B Lewis and David H Blossom, United States Deputy Surveyors
 their
 under his Contract No. 219, dated November 12 - , 1897
 Survey commenced October 5th , 1898
 Survey completed October 10th , 1898

6-161

381 + 100-07' 3
 2 140-00' 4
 421 + 6-05-60'

421 + 6-05-60'

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock Chamion
Geo Mortanson Chamion.
Wm Webb Flagman
F. W. Webb Mountaineer
F. W. Webb Cook.

For preliminary affidavits see back "B"

6-151

Volume

#

R0255

Survey of the Meridian of 923 S. Ridge Green River Meridian

Surveying commenced Oct 5 1888
and executed with a transit
L. E. Burley light-mountain
transit - with solar attachment.
For a description of the same
see book "A"

We examine the adjustments -
of the transit and correct the level
and collimation errors; then test
the solar apparatus, by comparing
its indications, resulting from
solar observations made
during a.m. and p.m. hours,
with a true meridian deter-
mined by observations on Polaris
as provided as follows:-

At the eve of Days 23 and 24 S
Rs 15 and 16 East - latitude
 $38^{\circ}46'N$ longitude $110^{\circ}14'W$; we
set off $38^{\circ}46'N$ on the lat arc
 $5^{\circ}00'5''$ on the decl arc; and at
4:00 p.m. l.m.t. determine
with the solar a true mer-
idian and mark a point
thereof, on a stone firmly
set in the ground 5.00 fms
N of our.

At 6⁴:28 in p.m. l.m.t. we
observe Polaris at eastern
elongation in accordance
with the manual of instruction
and mark a point in the
line thus determined, on a
piling driven in the ground
5.00 cms N of our station

Oct 5-1888

Oct 6-1888 At 7 a.m. l.m.t.
we lay off the azimuth of
Polaris $135.5'$ to the west and

Survey of the Meridian of 92³.5 R 16 E Green River Meridian

mark a true meridian thus determined by cutting a small groove in stone set Oct 5th on which the true meridian falls .3 in east of the mark determined by the solar. At 8.00^{am} a.m. I set the sun at $38^{\circ}46'$ from the lat arc; $5^{\circ}15'5$ on the decl arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 8.00 hrs N of my station the mark falls .3 inns east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0'16''$ west and $0'16''$ East of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 9.00^{am} is $N 15^{\circ}13' W$. The angle thus determined reduced by the table page 100, gives the mean mag decl. $15^{\circ}10'E$.

From the con of Tps 23 and 24 S Rs 15^o and 16 E, which is a small stone $24 \times 8 \times 6$ inns set in a mound of rock and plainly marked with 6 matches

Survey of the W. edge of T 23 S R 16 E Green River Meridian

on each edge we run north
on a blank line on the west
edge of sec 31. At 40.00 chs or
 $\frac{1}{4}$ sec cor can be found, and
at 81.30 chs or full 31, lies west
of the old cor of secs 25, 30, 31
and 36 which is a sand stone
6x3 x 5 ins above ground,
marked and witnessed as de-
scribed by the Surveyor General.
Therefore we continue our
line north and find the
west-edge of the R. to be defec-
tive in measurement and
many of the corners have
been obliterated or not
properly set and witnessed.
At 60 mi 1.08 chs intersect
E and S line 1.5-4 chs or of
the cor of Tps 22 and 23 S
R 15 and 16 E which is a
sand stone 6x4x16 ins above
ground firmly set; marked
and witnessed as described
by the Surveyor General.
Because of this we N 0° 11' E. Act - 6-1898.

As subdivisional lines have
not been closed upon either
side of or mineral claims
tied to the N. edge of T 23 S R 16 E
we resume the same as
follows.

Act 7-1898: At the cor of
Tps 23 and 24 S R 15 and 16 E
therefore described we
sight over the true merid-
ian already established
at this point.

I hereby, we run
N 0° 11' E bet secs 31 and 36.

Survey of the W. bdy. of T 23 S R 16 E. Green River

Ascend.

- 9.00 Top of rock ledge has west and S.E. ascends gradually.
20.00 Top of sandy bench. has E and W.
40.00 After diligent search no old 1/4 sec cor can be found.
Set a sand stone 12 x 14 x 3 ins 8 ins in the ground for 1/4 sec cor marked 1/4 on its face.
Dug pits 18 x 18 x 12 ins N and S of stone 3 ft dist; and raised a mound of earth 3 1/2 ft high 1 1/2 ft high west of cor.
Thence over rolling sand bench.
- 80.00 Set a flint rock 12 x 8 x 4 ins 8 ins in the ground for cor of secs 25, 30, 31 and 36. marked with 1 notch on S and 3 notches on N edges and raised a mound of stone 2 ft high 1 1/2 ft high west of cor. Pits in pr land mountainous.
Soil stony and sandy. 3rd No timber.
Mountainous land on 80.00 lbs.

N 0° 11' E bet secs 25 and 30.

Over rolling sand bench
ascend gradually.

- 1.30 Fall 6 lbs rest of old cor of secs 25, 30, 31 and 36 therefore discarded. we destroy all traces of old cor.
40.00 Set a sand stone 18 x 12 x 3 ins 12 ins in the ground for 1/4 sec cor marked 1/4 on its face; dug pits 18 x 18 x 12 ins N and S of stone 3 ft dist and raised a mound of earth

way of the body of 9235 or 16 E. Green River Meridian.

3¹/₂ ft. base 1¹/₂ ft. high west of
con.

After diligent search we
all try see con can be found
Dense through scattering
sage brush and green wood.
Set a granite 1¹/₂ x 6 x 5 in
base in the ground for con

8 sides 18, 24, 23 and 30 marked
with 2 matches on S and 4
matches on N edges; dug pit -
18x18x12 in., in brush see
5¹/₂ ft. drift, and raised a
mound of earth. 4 ft. base
3 ft. high west of con.

Land rolling.

Soil sandy and wet.

No birds.

Ground cover 40.00 lbs.

Alt 6-1848. At 8 o'clock Sun. to

sky over brush tree and water
Last observation.

N.C. 11° E. lat 40° 14' and 24'.

Land rolling sand hills.

4.30 Fall 20 ft. west of old con
if axes 18, 24, 23 and 30, which
is a small stone 8 x 6 x 10 in
above ground, marked with
written as described by
the Surveyor General. In all
strong all traces of old con.

Top of low sand ridge, no
E and W. Grasped gradually.

Set a flint rock 14x16x4 in
10 in. in the ground for my con
con marked 1¹/₂ on its face.

Dug pit 18x18x12 in. N and
S of stone 3 ft. drift and raised
a mound of earth 3 ft. base 1¹/₂ ft.

Mr. T. of T 23 S or 16 E. Green River

rest of cor.

- 42.57 Fall 6 lks east of old $\frac{1}{4}$ sec cor which is a limestone $8 \times 6 \times 8$ ins above ground, marked and witnessed as described by the Surveyor General. Do destroy all traces of old cor.
- 77.00 Enter breaks. Top of bluffs. Do E and W. Descend.
- 80.00 Set a sand stone $24 \times 6 \times 6$ ins 10 ins in the ground for cor of secs 13, 18, 19 and 24 marked with 3 matches on sand N edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable.
- Land rolling.
- Soil sandy and rate no timber.
- N $0^{\circ} 11' E$ bet secs 13 and 18.
- 2.50 Fall 20 lks east of old cor of secs 13, 18, 19 and 24 which is a sand stone $12 \times 8 \times 24$ ins, plainly marked and witnessed as described by the Surveyor General. Do destroy all traces of old cor.
- 2.60 Top of cliff south side of canon 150 ft high.
- Foot of red spur slopes west ascend point of spur descend.
- 28.00 Wash in bottom of canon do N.E. ascend abruptly.
- 36.00 Top of slick rock N side.
- 40.00 Set a white sand stone $20 \times 13 \times 4$ ins 15 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on W face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable. Ascend.
- 4160 Top of ledge 20 ft high do N.E. and S.W.

Survey of the Wbdy of T 23 S R 16 E. Green River Parc - 1 -

- 42.45 Fall 5'ths east of old $\frac{1}{4}$ sec cor which is a sand stone $18 \times 12 \times 5$ ins plainly marked and lying on the ground. we destroying all traces of old cor. Ascend.
 37.00 Point of spur slopes S.E.
 74.00 Ledge bet N.E. and S.E.
 Descend.
 80.00 Set a white sand stone $18 \times 12 \times 10$ ins 12 ins in the ground for cor of secs 7, 12, 13 and 18 marked with 4 notches on S. and 2 notches on N edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor.
 Pits impracticable.
 Land mountainous.
 Soil rocky & dry rate.
 No timber.
 Mountainous land on 8000 ft.
- Act 7-1885.

- No $^{\circ}$ 11'E bet secs 7 and 12.
 Descend.
 12.63 Fall 1 ft east of old cor of secs 7, 12, 13 and 18 which is a sand stone $20 \times 6 \times 10$ ins plainly marked and standing in a mound of rock. we destroying all traces of old cor.
 Head of gulch obs N.
 Descend along bottom of canon 30 ft deep.
 34.25 Junction of two gulches dr East and North.
 39.00 Ascend west side canon.
 40.00 Set a sand stone $18 \times 12 \times 5$ ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on

of the tributary of 9235 R/16E. Green River

in face and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
west of cor. Pits impracticable.

43.13 Fall 20 ltrs west of old $\frac{1}{4}$
cor which is a sand stone
 $20 \times 15 \times 6$ ins plainly marked
but lying on the ground.
We destroy all traces of old
cor.

Planes over rough rock
beneath.

-80.00 Top of ledge 30 ft high. South
side of "dry date" wash.
Set a sand stone $18 \times 10 \times 4$ ins
 12 ins in the ground for cor
of secs 1, 6, 7 and $1\frac{1}{2}$ marked
with 5 notches on S and 1
notch on N edges and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high west
of cor. Pits impracticable
Land mountainous.

Dirt rocky.

4 1/2 rate.

No timber.

Mountainous land over 80.00 ltrs.

Oct 8-1898. At 10⁴⁰ am
L.M.T. we set off $38^{\circ}5'N$ on
the flat area; $6^{\circ}0'W$ on the
decline and determine a
true meridian with the
solar at the cor of secs
1, 6, 7 and $1\frac{1}{2}$.

Planes over river.

$N 0^{\circ}11'E$ bet secs 1 and 6.
Dressed abruptly.

0.25 Bottom of canon.
150 ft deep.

Survey of the N.Bdy of T 23 S R 16 E. Green River Meridian.

- 3.97 Fall 4 lbs west. of old cor
of secs 1, 6, 7, and 12 which
is a ^{sandstone} $12 \times 10 \times 12$ ins above
ground, firmly set, marked
and witnessed as described
by the Surveyor General.
Tarry lake wash dries S.E.
- 7.00 Ascend abruptly. Road in bottom
of bluff lies N.W. and S.E.
Top of rock ridge lies E. and W.
Descend over rough rock
ledges.
- 15.67 East side of same wash dries
S.W.
- 20.00 Set a sandstone $16 \times 10 \times 5$ -ins
11 ins in the ground for
 $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on
W face and raised a
mound of stone 2 ft base
 $1\frac{1}{2}$ ft high west of cor.
Pits impracticable.
- 42.50 East side Ogallala wash dries S. 10° W.
After diligent search no
old $\frac{1}{4}$ sec cor can be
found.
- 48.30 Wash dries west. Ascend.
Sedge lies E & W.
- 51.00 Thrill over rock bench.
Wash dries west. Ascend.
- 58.50 Intersect E and W line
on the N Bdy of the Gf at the
cor of Tps 22 and 23 S R 15
and 16 E heretofore described.
Land mountainous.
Soil rocky. 4th rate.
No timber.
- 81.08 Mountainous land on 81.08 lbs.
Set 8-18-98. At this cor we set off
 $8^{\circ}06'$'s on the declinare and at
500 ft. height observe the sun on the
meridian. The resulting lat is $38^{\circ}51'N$.

the W of 922 S R 16 E. Green River Meridian

From the cor of Tps 22 and 23 S Rs 15 and 16 E heretofore described we run north on a blank line on the west boundary of sec 31. At 41.10ds fall of 100' sec 31. At 81.90ds fall 40 lks west of old cor of secs 25, 30, 31 and 36. Therefore we continue our line north and find the west bdy of the 2d to be defective in measurement and many of the old corners have been destroyed or are not properly set and witnessed.

At 6 mi 5.60 chs intersect E and W line 1.87 chs west of the cor of Tps 21 and 22 S Rs 15 and 16 E which is a cottonwood post greatly decayed and no grits are visible.

Oct - 8 - 1898

As subdivisioned lines have not been closed upon either side of a mineral claim tied to the W bdy of 922 S R 16 E we realurvey the same as follows.

Oct 9-1898: At 8⁴00 a.m.
b.m.t. we set off $38^{\circ}51'N$ on the lat arc; $6^{\circ}23'S$ on the decl arc and determine a true meridian with the solar at the cor of Tps 22 and 23 S Rs 15 and 16 E. heretofore described.

We hence run $N 0^{\circ}14'E$ bet secs 31 and 36.

Survey of the Wbdy. of 9225 R 16 E. Green River Meridian

Bound.

5.00	Top of low ridge bds NE and SW. Wash abrs S. 22°. second.
38.00	Top of ridge bds E and W. Set a lime rock 18 x 4 x 4 ins 12 ins. in the ground for 1/4 sec con marked 1/4 m. on face and raised a mound of stone 2 ft base 1 1/2 ft high west of con Ribs imperceptible.
41.10	Fall 3.5 lls west of old 1/4 sec con which is a sand stone 7 x 5 x 12 ins above ground firmly set, marked and mitbraced as described by the Surveyor General. Dredging all traces of old con.
44.00	Front of ridge bds E and W. Dune across red, white and blue flat.
- 80.00	Set a lime rock 17 x 7 x 6 ins 12 ins in the ground for con of secs 25, 30, 31 and 36 marked with 1 notch on S and 5 notches on N edges and raised a mound of stone 2 ft base 1 1/2 ft high to of con. Ribs imperceptible. Land mountainous. Soil rocky and sandy. 3rd and 4th rate. Mountainous land on 80.00 ch.

N 0° 14' E bet secs 25 and 30.

0.50	Top of small knoll. On volcanic formation.
1.90	Fall 11 lls west of old con of secs 25, 30, 31 and 36 which is a sand stone 7 x 6 x 10 ins above ground, marked and

Survey of the W. bdy of T 22 S R 16 E Green River Meridi-

witnessed as described by the Surveyor General.

We destroy all traces of old cor.

- 10.00 Low rock ridge bds E and W.
15.20 Foot of cliff point - faces west.
20.00 Top of point - descended.
38.00 Low sand ridge. bds E and W.
40.00 Set a lava rock 10x8x4 ins
12 ins in the ground for $\frac{1}{4}$
sec cor marked $\frac{1}{4}$ on west
face and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
rest of cor. Pits impracticable.
Dense over low rolling hills.
42.13 Fall 11 lbs west of old $\frac{1}{4}$ sec cor
which is a sand stone 10x6x12 ins
above ground on west end
witnessed as described by the
Surveyor General. We destroy
all traces of old cor.

- 58.00 Point off wall high rocks point
bds westerly. about 700 chs dist.
- 80.00 set a lava stone 20x4x4 inches
15 ins in the ground for cor
of secs 19, 24, 25 and 30 marked
with 2 notches on S and 4 notches
on N edges and raised a
of stone 2 ft base $1\frac{1}{2}$ ft high
rest of cor. Pits imprac-
tical mountainous.

Soil sandy and rocky.

3rd and 4th rate.

No timber.

Mountainous land over 8000 chs
Lat 38° 5' 8" At this cor we set
off 6' 28" on the decl are and
at 0° 00' on l.m.t. observe the
sun on the meridian. The
resulting lat is 38° 5' 8" N.

Survey of the body of 7225 R 16 E. Green River Meridian.

	N $^{\circ}$ 14' E but sees 19 and 24.
2.90	Pall 4 ltrs east of old cor to sees 19, 24, 25 and 30 which is a sand stone $7 \times 4 \times 8$ ins above ground, marked and witnessed as described by the Surveyor General. Do not destroy all traces of old cor.
18.00	Rock bluff bns E and W west drs east.
26.00	Foot of bench bns N.E. and S.W.
30.00	Top of bench.
32.00	Top of bench.
40.00	Set a conglomerate rock 18×8 $\times 4$ ins 14 ins in the ground for $\frac{1}{4}$ sec cor unarted $\frac{1}{4}$ on surface and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable.
43.15	Pall 3 ltrs west of old $\frac{1}{4}$ sec cor which is a sand stone $10 \times 5 \times 12$ ins above ground firmly set, marked and witnessed as described by the Surveyor General. Do not destroy all traces of old cor.
45.00	Pass 1.00 ch west of round conglomerate knoll.
60.41	Brail bns N.W. and S.E.
68.00	Head of wash drs North.
	Dredged in wash.
80.00	Set a limestone $14 \times 14 \times 2$ ins 10 ins in the ground for cor of sees 13, 18, 19, and 24 marked with 3 notches on N and S edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable. Land surrounded.
	Doil sandy 3rd rate no timber.

of the tributary of T22S R16E. Green River Meridian

mountainous land on 50.00 acres.
Last - 9-15-88.

	N 0°14'E lat - sees 13 and 18.
2.00	Cross wash drs N.E.
4.10	Fall 10 ft west of old cor of secs 13, 18, 19 and 24 which is a sand stone 12x3x12 ins above ground marked and witnessed as described by the Surveyor General
6.50	wash drs N.W.
39.50	Since $\frac{1}{4}$ sec cor will fall in bottom of large wash; at this point on set - a lime stone 34x7x4 ins 10 ins in the ground for a witness cor to $\frac{1}{4}$ sec cor marked W.C. $\frac{1}{4}$ on west face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high west of cor. Pits impracticable.
40.20	Center of large wash drs East. Ascent gradually.
44.00	Fall 2 ft east of old $\frac{1}{4}$ sec cor which is a sand stone 18x10x 5 ins plainly marked but lying on the ground. No destroy all traces of old cor.
53.80	Draft and wagon road to East.
62.00	Point of clay bench to East and W.
68.10	Top of bench 200 ft high.
79.90	Gully drs N.W. around.
-80.00	Set - a lime stone 14x8x6 ins. 10 ins in the ground for cor of secs 7, 12, 13 and 18 marked with 4 notches on S and 2 notches on N edges and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high west of cor. Pits impracticable

Survey of the Valley of TEE-SA-GEE-E. Green River Meridian.

Land mountainous.

Soil sand and clay.

2nd and 3rd rate.

No timber.

Mountainous land over 8000 ft.

Oct 10 - 1898. At 10th 00 a.m.
L.M.T. we set off $38^{\circ}53'N$
on the lat and $6^{\circ}49'S$ on the
dial and determine a
true meridian with the solar
at the corner of secs 7, 12, 13 and
18.

Then we ran...

No 14th E bet secs 7 and 12.
Ascend.

0.30 Top of bench has N.E. and West.
Fall 9 lbs east of old cor
of secs 7, 12, 13 and 18 which
is a sand stone 8x8x10 ins
above ground, marked and
measured as described by
the Surveyor General.
We destroy all traces of old cor.
Head of Creek obs North.
Descent.

21.00 Rock point - face west.
Cross same wash as above
obs N.E.

36.00 Wash obs N.E.
Fall a sand stone 14x6x4 ins
10 ins in the ground for $\frac{1}{4}$ sec
over marked $\frac{1}{4}$ on both
face; dug pits 18x18x12 ins
N and S of stone 3 ft apart and
raised a mound of earth
 $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft high west
of cor.

40.00 Fall 2 lbs east of old $\frac{1}{4}$
sec cor which is a limestone

Survey of the Valley of 922 S R 16 E. Green River Meridian

10 x 8 x 3 ins lying on the ground.
We destroy all traces of old cor.

49.2 Trail bes East and west.

65.00 Marsh obs to N.E.

75.00 Descend to flat.

- 80.00 Set a boulder 16 x 6 x 3 ins
11 ins in the ground for cor of
secs 1, 6, 7 and 12; marked
with 5 notches on S and 1 notch
on N edges and raised a
of stone & ft-base, 1 $\frac{1}{2}$ ft high
west of cor. Pits impractic-
able.

Land mountainous.

Soil sand and clay.

3rd and 4th rates.

No timber.

Mountainous land on 8000 hrs.

N 0° 14' E but secs. 1 and 6..

0.25 Trail bes E and W.

4.50 "Fire mill" marsh obs N 80° E

5.5 Fall 10 lbs east of old
cor of secs 1, 6, 7 and 12 which
is a limestone 12 x 8 x 6 ins
plainly marked, lying in
bottom of marsh. We de-
stroy all traces of old cor.
Ascend.

12.00 Top of black bench bes E and W.

20.50 North edge of bench. Descend.

29.00 Marsh obs East.

39.00 Trail bes E and W.

39.5 Large marsh obs East.

40.0.0 Set a limestone 12 x 8 x 4 ins
8 ins in the ground for 1/4
sec cor marked 1/4 on W
face; dry pits 18 x 18 x 12 ins
N and S of stone 3 ft deep
and raised a mound of

Survey of the N. body of T 22 S R 16 E. Green River Meridian

- 3 $\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft high west of cor.
- 45.56 Fall 6 lbs west of old 11 $\frac{1}{4}$.
see cor which is a lime-stone 8x4x6 in above ground
plainly marked but no pits
are visible. we destroy all
traces of old cor.
- 46.00 Top of black clay ridge lies
E and W. descended.
- 50.00 Wash. drs east.
- 71.50 Low ridge lies E and W.
wash drs S.E.
- 85.60 Intercept E and W line on
N body of the Tg at the cor
of Tps 21 and 22 S Rs 15-
and 16 E, which is a cotton-
wood root greatly decayed
and not probably witnessed;
Therefore at the exact cor point
as designated by old state
we set a granite rock
16 x 8 x 3 ins 11 ins in the
ground for cor of Tps 21 and
22 S Rs 15- and 16 E marked.
21 S on N.E.
16 E on S.E.
22 S on S.W.
15 E on N.W. faces with 6 notches
on each edge; dug pits
24 x 24 x 12 ins on each line
N.E. and W of stone 4 ft dist
and S of stone 8 ft dist and
raised a mound of earth
5 ft base 2 $\frac{1}{2}$ ft high S of
cor.
- Land mountainous.
Soil sand and clay,
dust and 3rd rate.
No timber.
- Mountainous land on 85.60 ch.
Oct-10-1888.

General Description.
For general description
See subdivisions of R.R. 23.
or 16 E.

Alfred B Lewis.
David H Blossom.
U.S. Dep Surveyor.

No officer authorized to administer oaths other than myself being available with out great inconvenience delay and expense I administer the required final oaths.

David H Blossom,
U.S. Dep Surveyor.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the
chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that
we will report the true distances to all notable objects, and the true lengths of all lines that we assist in
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 }



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment
of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 }



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners
and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 }



I, _____, do solemnly swear that I will well and truly
perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the
survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 }



FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B. Lewis and David A. Blawson, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of Green River ~~Brake Meridian through townships 20 & 21 west and survey of the same through Rds 22 and 23 south between ranges 15 and 16 E~~ ^{replacing} showing the respective capacities in which they acted:

A. H. Rock, Chairman.
Geo. Mortenson, Chairman.
....., Moundman.
....., Moundman.
....., Axman.
....., Axman.
....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B. Lewis and David A. Blawson, United States Deputy Surveyor, in surveying all those parts or portions of the Green River Brake meridian through townships 20 & 21 west ranges 15 and 16 east and re surveying the same through Rds 22 and 23 south between ranges 15 and 16 east of the salt lake base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for

A. H. Rock, Chairman.
Geo. Mortenson, Chairman.
....., Moundman.
....., Moundman.
....., Axman.
....., Axman.
....., Flagman.

Subscribed and sworn to before me this 1st day of December, 1898 }

SCOTT
SEAL

David A. Blawson
Asst. Day Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

..... of the
..... meridian, in the of which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

----- *United States Deputy Surveyor.*

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

189

The foregoing field notes of the survey of _____
executed by _____
under his contract No. _____, dated _____, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

----- *United States Surveyor General.*

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

----- *United States Surveyor General.*

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and
David H Blawson, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of Green
River Guide Meridian through townships 20, 22
and 23 south between ranges 15 and 16 east of
the salt lake base and meridian Utah
showing the respective capacities in which they acted:

F. W. Webb, Chainman.

F. W. Webb, Chainman.

F. W. Webb, Moundman.

F. W. Webb, Axman.

William L Webb, Axman.

William L Webb, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and

David H Blawson, United States Deputy Surveyor, in surveying all

those parts or portions of the Green River Guide Meridian
through townships 20, 22 and 23 south
between ranges 15 and 16 east of

of the Salt

Lake Base Meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah.

F. W. Webb, Chainman.

F. W. Webb, Chainman.

F. W. Webb, Moundman.

F. W. Webb, Axman.

William L Webb, Axman.

William L Webb, Flagman.

Subscribed and sworn to before me this 13th
day of November, 1898 }

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David H Blawson,
U. S. Deputy Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for ..., bearing date of the day of ..., 189 ..., I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for ..., the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of ...

of the ...

meridian, in the of ..., which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for ... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said ..., and sworn to before me }
this ... day of ..., 189 }

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O SEAL O
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APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Utah October 13th, 1897
The foregoing field notes of the survey of the Green River Guide Meridian
New Boundary of the 22 & 23 S. R. 6 E. of the Salt Lake Bas
Meridian of Utah

executed by *Cyrus P. Loring & David H. Blossom*
under contract No. 219, dated November 13th, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Jacob W. B. Blair
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ...
... has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-255

W. J. B.

FIELD NOTES

OF THE SURVEY OF THE

East ^{or} South Boundary ofT 22 S R 16 E.andRetracement of the N.Bdy. ofT 22 S R 16 E.of the Salt Lake Base ^{or} Meridian,State of Utah.

AS SURVEYED BY

Fred Behrens, Esq. David H. Blawie, United States Deputy Surveyor
under his Contract No. 219, dated Nov 12, 1897Survey commenced October 11, 1898Survey completed October 16, 1898

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W. J. B.
Oct 16 1898

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock	Chairman
Geo Mortenson	Chairman
Wm. Webb	Flagman
F. W. Webb	Mountaineer
P. W. Webb	Axeman

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PRELIMINARY OATHS OF ASSISTANTS.

We, A. H. Rock,

and

G. Mortenson,

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of ~~East and south boundary of T. 22 S. R. 16 E., retracement of N. tidy of T. 22 S. R. 16 E. of the Salt Lake Base and Meridian, Utah.~~

A. H. Rock

, Chainman.

G. Mortenson,

, Chainman.

Subscribed and sworn to before me this 11th
day of October, 1898 }



WE, F. W. Webb

David H. Blossom.

U.S. Army Surveyor

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~me~~, to the best of ~~our~~ skill and ability, in the survey of ~~the east and south boundary of T. 22 S. R. 16 E. and retracement of N. tidy of T. 22 S. R. 16 E. of the Salt Lake Base and Meridian, Utah.~~

F. W. Webb

, Moundman.

, Moundman.

Subscribed and sworn to before me this 11th
day of October, 1898 }



WE, F. W. Webb

David H. Blossom

U.S. Army Surveyor

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ~~me~~, to the best of ~~our~~ skill and ability, in the survey of ~~the east and south boundary of T. 22 S. R. 16 E. and retracement of N. tidy of T. 22 S. R. 16 E. of the Salt Lake Base and Meridian, Utah.~~

F. W. Webb

, Axman.

, Axman.

Subscribed and sworn to before me this 11th
day of October, 1898 }



David H. Blossom

U.S. Army Surveyor

I, William L. Webb, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of ~~the east and south boundary of T. 22 S. R. 16 E. and retracement of N. tidy of T. 22 S. R. 16 E. of the Salt Lake Base and Meridian, Utah.~~

William L. Webb

, Flagman.

Subscribed and sworn to before me this 11th
day of October, 1898 }



David H. Blossom

U.S. Army Surveyor

Resurvey of the east bdy of T 22 S R 16 E.

Resurvey commenced Dec 11-1898
and executed with a standard E.
Burley light mountain transit -
with solar attachment for
description of which see
book "A".

X
Previous to the commencement of
the resurvey of the east bdy of T 22 S
R 16 E., we examine the adjustments
of the transit and correct the level
and collimation errors; then, to
test the solar apparatus by compar-
ing its indications, resulting
from solar observations made
during a.m. and p.m. hours;
with a true meridian determined
by observations on Polaris, we
proceed as follows:-

Dec 11-1898:- At the cor. of Tps 22
and 23 S Rs 16 and 17 E, latitude
 $38^{\circ}51'N$ longitude $110^{\circ}07'W$ at 4100m
p.m. l.m.t. we set off $38^{\circ}51'N$ on
the lat arc; $7^{\circ}16'S$ on the decl arc
determine with the solar as
true meridian; and mark
a point thereof on a stone set
firmly in the ground 5.00ds
N of our station

At 6⁴.05m p.m. l.m.t. we observe
Polaris at eastern elongation
in accordance with the manual
of instructions and mark a
point on the line thus de-
termined on a peg driven in
the ground 5.00 N of our station.

Dec 11-1898

Dec 12 1898. At 8400m a.m. l.m.t.
we lay off the azimuth of
Polaris $1^{\circ}35'3''$ to the west and
mark the true meridian.

Resurvey of the east body of 9228916 E

thus determined, by cutting a small groove in the stone set, act 11., on which the true meridian falls 3 ins east. of the mark determined by the solar.

At 9^h 00^m a.m. l.m.t. we set off $38^{\circ}51'N$ on the lat arc; $7^{\circ}33'S$ on the decl arc; and mark a point in the true meridian determined with the solar by a cross on the stone already set, 5.00 obs N of our station; the mark falls 25 ins west of the true meridian established by the Polaris observation. The solar apparatus, by p.m. and a.m. observation defines positions for true meridian, respectively, about $0^{\circ}16'E$ and $0^{\circ}17.3'W$ of true meridian established by the Polaris observation.

Therefore we conclude
the adjustments of the instrument are satisfactory.
The magnetic bearing of the true meridian
at 8.00 a.m. is $N 15^{\circ}18' W$;
the angle thus determined
reduced by the table for
100 yards the mean may,
decl $15^{\circ}10'E$.

We begin at the corner of Pps
22 and 23 S R's 16 and 17 E, where
true meridian has been
established, the cor being
a sandstone 26x10x5 firmly

Resurvey of the East Body of T 22 S R 16 E

set marked and witnessed as described by the Surveyor General.

These we run with our blank line, on the east boundary of sec 36; at 40.18 chs in fall 26 lbs east of $\frac{1}{4}$ sec cor and at 80.95 chs fall 36 lbs east of the cor of secs 25, 30, 31 and 36. Therefore we continue our line north and find the east body to be incorrect in measurement and many of the corners are lying on the ground and not properly witnessed. At 6 mi 3.67 chs intersect E and W line 42 lbs E of the cor of Tps 21 and 22 S R 16 and 17 E which is a granite stone 36x8x7 in firmly set marked and witnessed as described by the Surveyor General.

Oct. 12-1888

As subdivisional lines have not been closed upon either side of or measured claimants tied to "the E body of T 22 S R 16 E" in resurvey the same as follows.

From the corner of Tps 22 and 23 S R 16 and 17 E described above we run,

N $0^{\circ}3'W$ bet secs 31 and 36.

Ascend gradually top of low rocky ridge to E and descend.

Set a sand stone 24x15x3 in 18 ins in the ground for $\frac{1}{4}$ sec corner marked "Y".

16.85-

40.00

Survey of the East End of 9th & 10th E.

on west face and raised
a mound of stone 2 ft
base 1½ ft high w of cor.
Pits impracticable.

- 40.16 Fall 17 lks east of old cor 14 see
64.85 wash 1.00 ch wide dries westerly.

Ascend.

- 80.00 Set sand stone 16x18x8 ins
11 ins in the ground for cor
of sees 25, 30, 31, and 36; marked
with 1 notch on 3 and 5 notches
on N ledges; and raised a
mound of stone 2 ft base
1½ ft high west of cor.
Pits impracticable.
Land mountainous.
Soil rocky, dry rate
No timber.
Mountainous land on 80.00
-

North 0° 3' w bet sees 25 and 30.
Ascend.

- 0.95 Fall 18 lks 2 of old cor to sees
25, 30, 31 and 36 which is a
sand stone 10x8x8 ins above
ground marked and intersected
as described by the Surveyor
General. Be destroying all
traces of old cor.
- 9.21 Top of bluff brs & and on.
descend.
- 14.71 Center of "Salt Wash" dries
from S.E. to W. Ascend.
- 37.63 Top of bluff brs west and
S.E.
- 40.00 Set a sand stone 24x12x3 ins
18 ins in the ground for
1/4 see . . .

Resurvey of the E. boundary of 9-22-8 R 16 E

cor marked $\frac{1}{4}$ m. in surface
and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft
high or of cor. Pits imprac-
ticable.

40.96 Fall 27 lbs m of old $\frac{1}{4}$ cor
which is a sand stone 50x
 12×4 lying on the ground.
we destroy all traces of sand
corner.

63.31 bush 1.00 wide obs from NE 33d.
Ascend over rolling hills.

- 80.00 Set Lava Rock $15 \times 8 \times 8$ ins 10 ins
in the ground for cor to sees
19, 24, 25 & 30 marked with 2
notches on 3 and 4 notches on
N edges and raised a
mound of stone 2 ft
base $1\frac{1}{2}$ ft high or of cor.
Pits impracticable.

Land broken.

Soil gravel and rocky.
at rate.

No timber.

Moraine land on
80.00 chs.

Oct 10 - 15 98: At this cor we
set off $7^{\circ} 57'$'s on the decl arc
and at 8:00 a.m. observed
the sun on the meridian;
the resulting lat is $38^{\circ} 53' N$.

North $0^{\circ} 3'$ m bet sees 19 and 24.

1.20 Fall 24 lbs c of old cor which
is a grayish $10 \times 8 \times 6$ standing
in pile of rock and marked
as described by the Surveyor
General. we destroy all traces
of the old cor.

12.83 Top of ridge spurs slopes E..

Resurvey of the East half of T 22 S R 16

descend.

18.00 Gully dros E. Ascend abruptly.

23.20 Top of rock ledge 300 ft high runs SW and E for about 5.00 ds then north.

Descend gradually along rock bench.

40.00 Set a sand stone 16x12x5 in 11 in in ground for $\frac{1}{4}$ sec cor., marked $\frac{1}{4}$ in on face and raised a mound of stones 2 ft base 1 $\frac{1}{2}$ ft high west of cor. Pits impracticable.

41.15 Fall 42 lbs E of old $\frac{1}{4}$ cor., which is a sand stone 13x5 x 8 in above ground, marked and interested as described by the Surveyor General. Try destroy all trace of old cor.

49.22 Ledge 30 ft high. S side of head of gully dros E.

54.00 Head of gully dros East.

56.52 Same ledge North side of gully. Descend gradually S. to.

68.00 Set a sand stone 28x11x10 in 21 in in the ground for cor. of secs 13, 15, 19, 24 marked with 3 notches on N and S edges, and raised a mound of stones 2 ft base 1 $\frac{1}{2}$ ft high west of cor. Pits impracticable. Land broken.

Soil rocky, 4th rate.

No timber

Moorish iron land on 80.00 ds.

North 0° 3' or lat secs 13 and 18.

245 Fall 37 lbs E of old cor. to secs

Resurvey of the East half of T2 R5 S16

- 13, 18, 19 & 24; which is a sand stone $11 \times 10 \times 30$ ins above ground marked and increased as described by the Surveyor General. We destroy all trace of old cor.
- 3.10 A point at east end of small rock knoll.
- 7.77 Ascend abruptly over slide rock.
- 15.62 Top of rock bridge 250 ft high hrs 2 & 4. Descend gradually over rolling hills.
- 40.00 Set a sand stone $16 \times 12 \times 5$ ins 11 ins in the ground for $\frac{1}{4}$ sec cor, marked $\frac{1}{4}$ on it and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable. Ground.
- 42.48 Fall 2 galls 2 of old $\frac{1}{4}$ sec cor which is a sand stone $16 \times 12 \times 5$ lying on the ground. We destroy all traces of old cor.
- 43.07 Point of rocks faces to East basin.
- 54.12 Top of low cliff. hrs 4 and 8th Learn basin.
- 75.82 Gulch abrs N. w. descend.
- 80.00 Set a sand stone $18 \times 6 \times 6$ ins 14 ins in the ground for cor of secs 7, 12, 13 and 18 marked with 2 notches on N and 4 notches on S edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable. Land monotonous. Soil rocky & thin.

Resurvey of the East-half of T22S R16

To timber

mountainous land over 80,000 acres.

Oct-13-1898.

Oct-14-1898. At 8th 00 and m. C.

We set off $38^{\circ} 55' N$ on the lat arc
and $8^{\circ} 16' S$ on the decl arc; and
determine a true meridian
at the cor of secs 7, 12, 13 and
18.

Thence we run:

North $0^{\circ} 3' N$ bt-secs 7 and 12.

descend.

3.07 Fall 10 ltrs east of old cor
to secs 7, 12, 13 and 18 which
is a sand stone $30 \times 5 \times 4$ ins
lying on the ground,
marked as described by
the Surveyor General.
We destroy all traces of
old cor.

Old cor falls in bottom
of ravine abo N.W. bend
of top of small ridge brs E & W.
descend.

40.00 Set a sand stone $18 \times 6 \times 6$
ins 14 ins in the ground for
 $\frac{1}{4}$ sec cor; marked $\frac{1}{4}$ on
surface and raised a
mound of stone 2 ft
base $1\frac{1}{2}$ ft high or 7
ins. Pits impracticable.
descend.

42.97 Fall 3 ltrs 2 of old $\frac{1}{4}$ cor
which is a sand stone
 $6 \times 6 \times 1\frac{1}{2}$ ins above ground
marked and witnessed
as described by the Sur-
veyor General. We destroy
all traces of old cor.

Resurvey of the East half of 9223 of 16 E.

67.17	Mark sides from SW to N.E. described.
- 80.00	Set a sand stone 18x6x6 ins 12 ins in the ground for cor of secs 1, 6, 7, and 12 marked with painted on N and S notches on edges; and raised a mound of stone 2 ft base 1½ ft high at each corner. Pit un- practicable. Land mountainous soil rocky & thin rate. No timber. Mountainous land on 80.00 chs.
	$N 0^{\circ} 3' W$ bet secs 1 and 6. described.
3.17	Fall 1st west of old cor to secs 1, 6, 7, and 12 which is a sand stone 6x6x8 ins above ground marked sand witnessed as described by the Surveyor General. No destroy all traces of old corner.

11.67	Foot of bluff bet E and W.
14.17	Center of Little Grand road 80 lbs wide chs south westerly descend gradually over rolling country.
40.00	Set a sand stone 14x12x3 ins 10 ins in the ground for ¼ sec cor marked ¼ on W face; dig pit 18x18x12 ins N and S of stone 3 ft dist and raised a mound of earth 3½ ft base 1½ ft high at each corner. descend gradually.
43 42	Intersect old ¼ sec cor which is a shall 12x3x4 ins above ground, marked and

Resurvey of the East bdy of T 22 S R 16 E.

intended is described by
the Surveyor General. He
destroyed all traces of old cor.
Wayne road lies E and W.
Small gully does west.

Ascend abruptly.

Top of black clay ridge lies
N.W. and east. Descend
gradually.

Intersect cor to Tps 21 and
22 S R 16 and 17 E which is
a quartzite 3618 x 7 in stand-
ing in mound of stone.
The corner is plainly mark-
ed and witnessed as de-
scribed by the Surveyor-
General.

Level mountains.

Soil stony and gravelly.
All rock.

No timber.

Mountains level on 83.67 ch.
Oct 14 - 1898. At this cor we
set off $8^{\circ} 21'$'s on the decl. arc
and at 0400 m from t observe
the sun on the meridian.
The resulting lat of the N
bdy of T 22 S R 16 E is $38^{\circ} 56' N$.
Oct 14. 1898

Resurvey of the south boundary of T 22 S R 16 E.

At the cor. of Tps 22 and 23 S
R's 16 and 17 E already described
we sight over the true meridian
established at this point.
Hence we run west on a
blank line, on the south
boundary of sec 36; at 4010 chs
we find the north of $\frac{1}{4}$ sec cor
and at 80.24 chs fall 4 chs
south of cor of secs 13, 35 and 36.
Therefore we continue our
line west and find the south
bdy to be incorrect in
measurement and on the
western $3\frac{1}{2}$ miles we could
find no traces of any cor.
mers whatever.

At 6 mi 5.25 chs intersect
the cor of Tps 22 and 23 S
R's 15 and 16 E which is a
sand stone $23 \times 6 \times 4$ ins stand-
ing in mound of rocks,
bent and otherwise as
described by the Surveyor
General.

Oct 14, 1888

Oct 15-1888:

As subdivisional lines
have not been closed upon
or mineral claims tied to
the S bdy of T 22 S R 16 E we
resurvey the same as
follows.

From the cor of Tps 22 and
23 S R's 16 and 17 E described
above we run.

West bet secs 1 and 36.

Descend along N side of
gulch chs N.W.

Leave gulch.

16.65

Resurvey of the South Boundary of Section 216 E.

- 2000 bush ds from S to N.W.
39.50 Ascend abruptly.
39.70 Top of cliff bds N and S 25 ft high.
40.00 At the west-point for 1/4 mile, ^{cross} mark
a 14' on a sand stone ledge and
mark $\frac{1}{4}$ north of cross; raised
a mound of stone 2 ft basal $\frac{1}{2}$
ft high west of cor. Bits impractic-
able.
40.10 Fall 7 lbs N of old $\frac{1}{4}$ see cor which
is a \times marked on solid sand
stone ledge marked and
witnessed as described by the
Surveyor General. Be destroy
all traces of old cor.
43.00 Top of second ledge bds E and
W. Run over slab-rock flat.
65.00 Small gallery ds north; in
which there are some indi-
cations of a spring but no water
is visible on the surface.
80.00 Set a sand stone 15x12x10 ins
10 ins in the ground for cor
of secs 1, 2, 35, and 36; marked
with 1 notch on E and 5 notches
on W edges and raised a
mound of stone 2 ft basal $\frac{1}{2}$
ft high west of cor. Bits
impracticable.
Land monotonous.
Soil rocky & dry rate.
No timber.
monotonous land on 80.00 ds.

best set sees 2 and 35.

- 1.24 Fall 4 lbs south of old cor of sees
1, 2, 35 and 36. which is a sand
stone 14x10x5 ins above ground
firmly set marked and witness-
ed as described by the Surveyor

Survey of the South Edge of 9225 of 16 E.

General. We destroy all traces of old corner.

3400	Flat rock bluff br N and S. Pass between rocks.
36.55	
40.00	At the exact point for 1/4 sec cor we cut a 1/4 on solid ledge of rock; marked by one mark side of cross and rais- ed a mound of stone 2 ft- base 1 1/2 ft-high N of cor. Pits impracticable.
40.20	Fall 1 ft south of old 1/4 sec cor which is a sand stone 30x15x4 in lying on the ground.
57.70	We destroy all traces of old cor. Top of rock bluff 200 ft-high, faces west descent.
74.00	Mark chs S. W.
80.00	Set a sand stone 16x10x3 in 11 in in the ground for cor of secs 2, 3, 34 and 35 marked with 2 notches on E and 4 notches on W edges and raised a mound of stone 2 ft base 1 1/2 ft-high N of cor. Pits impracticable. Dense mountainous Soil rocky. 4th rate. No timber. Mountainous land on 80.00 chs

West bat secs 3 and 34.

0.18	Fall 3 lbs N of old cor of secs 2, 3, 33, and 34 which is a sand stone 14x12x3 in standing in mound of stone, the marks on the same being nearly effaced. We destroy all traces of old cor.
10.50	Foot of steep bluffs 150 ft-high Descent abruptly.
18.00	Top of bluff. br N and S descent.
34.85	Top of ledge 75 ft-high br N and S

Resurvey of the South Bank of T 22 S R 16 E.

	descend abruptly. Since $\frac{1}{4}$ cor. still fall in. river therefore at:
38.60	Set a sand stone 16x6x4 ins 11 ins in the ground for a meander corner to $\frac{1}{4}$ sec cor. marked N.C. $\frac{1}{4}$ cor N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high North of cor. Pitt impracticable.
38.90	Left bank of Green River. After diligent search we are unable to find old meander cor., therefore we set a sand stone 24x8x5 ins 18 ins in the ground for meander cor. of gravel secs 3 and 34, marked N.C. on west face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high East of cor. Pitt impracticable. The water being low at time of survey we were across river with steel tape and find the dist to be 8.95 chs. $38.80 + 8.95 = 47.85$
47.85	Right bank of Green River. Set a cobble rock 14x8x4 ins 9 ins in the ground for meander corner of gravel secs 3 and 34; marked N.C. on E face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high W of cor. Pitt impracticable.
61.00	Foot of placer bar point slopes S.E. ascend.
62.00	Top of bar. Descend.
63.00	Wash drs S 80° E ascend.
78.00	Head of gulch drs east.
-80.00	After diligent search no old sec cor can be found. Therefore we set a sand stone 16x12x3 ins 11 ins in the ground for cor of secs 3, 4, 33 and 34,

Resurvey of the south body of 9-228916 E.

marked with 3 notches on E and
W edges and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft high
N of cor. Pitt impracticable
Land mountainous.

Soil rocky and sandy.

Bad and dry rate.

No timber.

Mountainous land on 8.00 chs.

- 0.39 West lot sees 4 and 33.
Top of ledge 15 ft high bes
S and NE. Pit near along
slab rock and sand bench.
No $\frac{1}{4}$ sec cor can be found
Therefore we,
set a sand stone 16 x 12 x 4 ins
11 ins in the ground for $\frac{1}{4}$ sec
cor marked by on N face and
raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
This corner comes about
4.00 chs south of rock ridge
bes N.W. and S.E.
- 53.00 Wash obs from N.W. to S.E.
- 58.00 Top of low bluff bes N.W. and
S.E.
- 60.00 Wash obs from N.W. to S.E.
- 68.00 Rock ridge bes N and S divided
Main wash obs south.
- 71.20 Cliff at head of gulch obs
N.E.
- 80.00 After diligent search we are
unable to find old cor of
secs 4, 5, 32 and 33, therefore
we set a sand stone
15 x 10 x 8 ins 10 ins in the
ground for cor of secs
4, 5, 32 and 33, marked

Resurvey of the South Body of 922 S.R. 16 E.

with 4 notches on E and 2 notches on W edges and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high west of cor.

Pits impracticable.

Land mountainous.

Soil rocky and sandy.

4th rate.

No timber.

Mountainous land on 80.00 chs.

West lot sees 5 and 3 z.

Over slab rock.

15.00 Gulch dir N.E. Ascend gra

9 of of low black point
south. Descend.

40.00 No $\frac{1}{4}$ sec cor can be found
therefore we

Set a sand stone $30 \times 12 \times 4$ ins.
23 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on W face and
raised a mound of stone
2 ft. base $1\frac{1}{2}$ ft. high N of cor

Pits impracticable.

Note:- This cor falls on the
south side of gulch dir S.E.
then N.E.

Ascend.

59.00 Foot of clay ridge bds NE and
S.W.

Ascend abruptly.

68.10 9 of of ridge 200 ft high bds
N.E. and S.W. descend gradually.

80.00 After diligent search we
are unable to find old
cor of secs 5, 6, 31 and 32.

Therefore we

set a lava rock $14 \times 7 \times 6$ ins
9 ins in the ground for
cor of secs 5, 6, 31 and 32.

Survey of the South Edge of T 22 S or 16 E.

marked with 5 notches on E and 1 notch on W edge
and raised a mound of
stone 2 ft. base $1\frac{1}{2}$ ft. high or
1 cor. Pits impracticable.
Land mountainous.
Soil rocky and sandy.
4th rate.
No timber.
Mountainous land on 80.00 acs.

West lot sees 6 and 31.
descend

- 5.75 Bottom of gulch obs NE.
descend abruptly.
8.25 Top of bank bet N and S.
21.55 Top of red cliff 100ft high faces W.
25.40 Bottom of gulch obs south.
descend abruptly.
32.00 Top of red ridge 150ft high, obs N & S.
descend abruptly.
39.75 wash obs westward.
40.00 No $\frac{1}{4}$ sec on cone to found
therefore we,
Set a sand stone $13 \times 12 \times 4$ ins
9 ins in the ground for $\frac{1}{4}$
sec cor marked $\frac{1}{4}$ on N face
and raised a mound of
stone 2 ft. base $1\frac{1}{2}$ ft. high
No cor. Pits impracticable.
descend.
47.50 wash obs S.
There run over broken
ledge points and large
boulders.
51.00 Point about 3.00 south of
red cone.
85.25 Intersect old cor to Thos
22 and 23 S Rs 15 and 16 E.
which is a sand stone.

Resurvey of the Survey of T 22 S R 16 E.

6x4x16 ins above ground
firmly set marked and
withcised as described by
the Surveyor General.

Land Mountainous.

Soil stony and rocky.
~~With road~~

No timber.

Mountainous land on 85.25-th.

Oct. 15-1898.

Retracement of the North boundary of T 22 S R 16 E.

Knowing the north boundary of T 22 S R 16 E to be defective in alignment and measurement we retrace the same as follows in order to account for our "closing distances" when running the subdivisional lines.

Oct 16, 1888. At 8 A.M. A.M.T. we set off $38^{\circ}56'N$ on the east arc and $9^{\circ}00'S$ on the west arc; and determine a true meridian with the solar at the corner of Twp 21 and 22 S R 16 and 17 E.

Thence we run, west on a retracement line between sec 1 and 36.

Ascend gradually.

500' Top of bluff betw N.W. and S.
descend abruptly.

7.60 Foot of bluff. Ascend over small clay ridges.

10.80 Foot of ridge enters rolling flat.

21.74 west abo 3 in.

40.16 Fall 7 ft. S of old $\frac{1}{4}$ sec cor
which is a sandstone
 $12 \times 8 \times 9$ ins above ground
firmly set, marked, and
written as described
by the Surveyor General.

58.80 Leave flat ascend.

71.30 Top of rock point faces S.

77.30 descend west slope of point.

80.46 Bottom of head of gulch
abo south. Ascend.

- 80.60 Fall 8 ft. S of old cor
to secs 1, 2, 35, 36 which
is a sandstone 10×4
 $\times 9$ ins above ground.

Retracement of the N.Bdy of T 22 S R 16 E.

marked and witnessed
as described by the Surveyor
General.

The true course of this
line is therefore $S 89^{\circ} 57' W$
Land mountainous.
Soil stony and sandy.
No timber.

Mountainous land on 80.60 chs.

West on retracement line
bet secs 2 and 35.

Ascend.

Top of clay spur slopes S.
descend.

Point about 2.00 chs south
of oil well owned by E. Gurn.
Limestone rocks and enters
rolling hills.

Point 35-fts N of log cabin
owned by E. Gurn, unoccupied.

Point 50-fts S of oil well
once operated by J. T. Farmer.
wash drs S.E. of this in.

Fall 5-fts south of old 1/4 sec
corner which is a sandstone
10x4x4-in above ground
firmly set, marked and
witnessed as described by
the Surveyor General.

wagon road lies N.W., S.E.,
ascend gradually.

Top of low ridge bet N and S.
descend to sec cor.

- 80.14 Fall 2-fts S of old cor to secs
2, 3, 34 and 35 which is a
sandstone 2x5x5-in above
ground marked and witnessed
as described by the Surveyor
General. The true course of line is therefore
 $N 89^{\circ} 59' W$.

stracement of the N bdy of 9228, or 165

Land irregular.
Soil stony and sandy.
4th rate.
No timber.
Irregular land on 80.4 acs.

- 0.80 - West lot secs 3 and 34.
Left bank of Green River.
The old bank has been washed
away and old N.C. destroyed.
Therefore at this point we
set a sand stone 14x10x4 in
9 ins in the ground for
N.C. cor. to gravel secs 3 and
34, marked N.C. on its
face and raised a
mound of stone 2 ft
base 1½ ft high East
of cor. Bits impracticable
to measure across river
with steel tape and find
the dist to be 9.35 chs.
10.20 Fall 12 lbs south old meander
cor to gravel secs 3 and 34.
which is aoulder 8x6x5 ins
above ground marked and
vitrified as described by
the Surveyor General.
Ascend.
- 21.80 Marsh obs N.E. Ascend gradually.
Fall 42 lbs south of old 1½ ac
cor which is a cobble stone
8x6x4 ins above ground
marked and vitrified as
described by the Surveyor
General. Ascend.
- 40.35 West edge of bench. Ascend.
Front obs S Ascend.
Cuts gravel bank.
Fall 75 lbs south of old
- 63.30
68.35
69.38
- 80.30

Statement of the Nbdy of T22S R16E.

cor to secs 3, 4, 33, and 34
which is a cobble stone
12x8x6 ins above ground
marked and witnessed
as described by the Surveyor
General.

The true course of this
line is therefore $N89^{\circ}28'W$
Land mountainous.

soil rock, sand and gravel.
3rd and 4th rates.

No timber

Mountainous land over 80.30ds.

West bet secs 4 and 33.
descend gradually.

30.70 west edge of bench, descend.

35.65 wash drs S.W. ascend.

40.23 Fall 23 lls south of old 1/4 sec
on which is a sand stone
8x7x4 ins above ground
marked and witnessed as
described by the Surveyor
General.

40.70 wash drs south ascend.

42.30 Top of bench drs N and S.

49.55 trail drs N and S.

73.60 wash drs S.W. ascend.

- 81.30 Fall 70 lls south of old cor
to secs 4, 5, 32 and 33. which
is a boulder 10x6x5 ins
above ground marked and
witnessed as described by
the Surveyor General.

The true course of this
line is therefore $N89^{\circ}30'W$
Land mountainous.

Soil sand and gravel.

3rd and 4th rates.

No timber.

Detachment of the N. bdy of T 22 S R 16 E.

Mountainous land on 81.80 chs.

- West bet secs 5 and 32.
Hollow drs south 70 ft. deep.
ascend
Top of bench bet N and S.
west edge of bench descend.
Hollow drs S. descend.
Top small ridge N and S.
Hollow drs SE descend.
Fall 20 lbs south of old 1/4 sec
cor which is a sand stone 12x
4x6 ins above ground. marked
and witnessed as described
by the Surveyor General.
descend.
Gully drs south. descend
Top of low gravel ridge.
bet N and S. descend.
wash drs S.W. descend.
Fall 40 lbs south of cor to
secs 5, 6, 31 and 32 which is
a sand stone 6x6x7 ins above
ground marked and witnessed
as described by the Surveyor
General.

The true course of this
line is therefore N 89 43 W.
Land mountainous
Soil gravel clay and sand.
3rd and 4th tract.

No timber.

Mountainous land on 80.64 chs

West bet secs 6 and 31.
ascend.

- Top of small black knoll.
Ridge bet N and S. descend.
wagon road from "Gold Camp"

Statement of the Nbdy of T22S R16E.

11.80 to Green River bds N.W. and S.E.
wash dries from NW to SE.
Thence over rolling hills
and hollows.

40.50 Fall 17 lbs south of old $\frac{1}{4}$ sec cor
which is a sand stone 6x6x
6ins above ground, marked
and witnessed as described
by the Surveyor General.
Ascend.

54.73 Top of ridge bds E and is
descend.

- 80.73 Fall 27 lbs south of cor to
Tps 21 and 22 S R315 and 16
E which is a granite 16x8x3in.
previously set by us to replace
old stake nearly decayed.
The true course of this
line is therefore $N 89^{\circ} 48' 47''$.
Land boundaries.
Soil strong and sandy
3rd and 4th rates.
No timber.

Mound lines laid on 80.73 chs.
Oct. 16-1898.

Line designated	True Bearing	DIST	Longitudes			Departures	
			chrs.	chs.	chs.	chrs.	chs.
N Bdy	T22S R16E	S $89^{\circ} 48' E$	80.73		.28	80.73	
"	"	S $89^{\circ} 43' E$	80.64		.40	80.63	
"	"	S $89^{\circ} 36' E$	81.30		.71	81.29	
"	"	S $89^{\circ} 28' E$	80.30		.75	80.30	
"	"	S $89^{\circ} 59' E$	80.14		.02	80.14	
"	"	N $89^{\circ} 57' E$	80.60	.07		80.60	
E Bdy	T22S R16E	S $0^{\circ} 3' E$	483.67		483.67	.42	
S Bdy	T22S R16E	WEST	485.25				485.25
W Bdy	T22S R16E	N $0^{\circ} 14' E$	485.60	485.57		1.98	
Convergency						.58	
			485.66	485.85	486.67	485.25	
				485.66	485.25		
Error in Lat.				0.17	1.42	Error in dep.	

Retracement of the survey of Feb 28 1915.

For general description see
Subdivisions of this township.

Alfred B Lewis.
David H Blawie
U.S. Dept Surveyors.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted:

_____, *Chairman.*

_____, *Chairman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

of the _____

meridian, _____ of _____, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

_____, *Chairman.*

_____, *Chairman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

Subscribed and sworn to before me this _____
day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

of the _____
meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Oct 1st 1899

The foregoing field notes of the survey of *the East & South Rods & rethacement
of the North Boundary of Twp 22 S. R. 6 E. of the Salt Lake
Base & Meridian Plate*

executed by *Alfred W. Lewis & David A. Blossom*
under his contract No. *219*, dated *December 12th*, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Jacob W. Bl

United States Surveyor General.

'I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-255

26,3,13.

FIELD NOTES

OF THE SURVEY OF THE

Subdivisions ^{of} Meanders.

of

T22S R16E

of the Salt Lake Base and Meridian,
State of Utah

AS SURVEYED BY

Wm. B. Lewis and David H. Blossom, United States Deputy Surveyors,
 under his Contract No. 219, dated November 12, 1897
 Survey commenced October 17, 1898
 Survey completed November 3rd, 1898

-161-

Dist.	1.00	58-447-06 V
"	2.00	2-1-2-1 V
Wm. B.		4-72-1
Dist.	1.00	104-66-91 V
"	2.00	6-78-61 V

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock	Champlain
Geo. Morrison	Champlain
Mr. Webb.	Flagman
F. W. Webb.	Appraiser
F. W. Webb.	Mound-man

To preliminary affidavits, see book E.

BOOK A-255

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
20	20	28	27	26	25
21	22	23	24	25	26

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE,

and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey or

, Chainman

, Chainman

Subscribed and sworn to before me this _____ }
day of _____, 189 }



WE,

and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey or

, Moundman

, Moundman

Subscribed and sworn to before me this _____ }
day of _____, 189 }



WE,

and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corn and other duties, according to instructions given us, to the best of our skill and ability, in the survey or

, Axman

, Axman

Subscribed and sworn to before me this _____ }
day of _____, 189 }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey or

, Flagman

Subscribed and sworn to before me this _____ }
day of _____, 189 }



Subdivisions of T 22 S R 16 E.

Survey commenced Oct-17-1898,
and completed with a transit & E.
Gurley light mountain transit
with solar attachment, for
a description of which
see Book "E".

We examine the adjustments
of the transit and correct
the level and collimation
errors; then to test the solar
apparatus, by comparing
its indications resulting
from solar observations,
made during a six and four
hours, with a true meridian
determined by observations
on Polaris, we proceed as
follows:-

At the cor. of sec 1, 2, 35
and 36 on the South boundary
of T 22 S R 16 E previously
described, the same being
in lat $38^{\circ}5'N$ and longitude
 $110^{\circ}08'W$ we set off $38^{\circ}5'N$
on the lat arc; $8^{\circ}30'S$ on
the decl. arc and at $4^{\circ}00'm$
P.M. L.M.T. determine
with the solar a true
meridian and mark a
point thereof, on a stone
firmly set in the ground
 $5'00$ fms N of the cor.

Oct 17-1898.

Oct 18-1898:- At $5^{\text{h}}30^{\text{m}}A$ m
L.M.T. we observe Polaris
at greatest elongation, in
accordance with the manual
of instructions and mark
a point in the line thus

Subdivisions of T 225 & 16 E.

determined on a plumb division
in the ground, 5.00 chs N
of our Sta.

At 7⁴⁰ a.m. l.m.t.
we lay off the azimuth of
Polaris $1^{\circ}35.5'$ to the East and
mark the true meridian
thus determined by cutting a
small groove in the stone
set Oct 17-1898 on which
the true meridian falls
0.5 ins East of the mark de-
termined by the solar.

At 8⁴⁰ a.m. l.m.t. we set
 $38^{\circ}5'11''$ on the lat arc
and $9^{\circ}44.5'$ on the decl arc
and mark a point in the
true meridian determined
with the solar, by a cross
in the stone already set
5.00 chs N of our sta.

This mark falls .25 ins
East of the true meridian
established by the Polaris
observation.

The solar apparatus by
a.m. and p.m. observations
defines positions for the
true meridian respectively
about $0'26''$ West and $0'15''$
East of the meridian
established by the Polaris
observation; therefore we
conclude that the adjust-
ments of the instrument
are satisfactory.

The magnetic bearing
of the true meridian
at 9⁴⁰ a.m. l.m.t.
is $N 15^{\circ}13' W$; the angle
thus determined reduced

Subdivision of T 22 S R 16 E.

by the table on page 100
gives the mean mag-
dip $15^{\circ} 10' E'$

Having reserved the south
and east bldgs of this township
we commence at the cor.
of secs 1, 2, 35 and 36 on the
S bdy of the T. J. which is
a sand stone $14 \times 10 \times 5$ ins
above ground marked and
written as described by
the Surveyor General.

Hence we run
 $N 0^{\circ} 4' W$ bet bet secs 35 and 36.
Descent gradually along
rock bench.

- 11.19 Top of rock bluff 100 ft high
south side of wash.
- 31.79 Wash obs west. Ascend.
- 40.00 Set a sand stone $22 \times 10 \times 5$
ins 16 ins in the ground for
 $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on the
face and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
west of cor. Pitt impracticable
ascend abruptly.
- 40.42 Top of cliff 40 ft high.
Descent gradually on
slab rock.
- 76.52 Edge of cliff 30 ft high
faces N. Descent.
- 80.00 Set a sand stone $26 \times 8 \times 4$ ins
20 ins in the ground for
cor of secs 25, 26, 35 and 36.
marked with 1 notch on
S and E edges and raised
a mound of stone 2 ft
base $1\frac{1}{2}$ ft high west of
cor Pitt impracticable

Subdivisions of T. 22 S. R. 16 E.

Land mountainous.

Soil stony & dry rate.

No timber.

Mountainous land on 80.00 chs.

East on a random line
bet secs 25 and 36.

40.00 Set tiny $\frac{1}{4}$ sec cor.

80.16 Intersect E 13 dy of T. 10 Mts
N of cor of secs 25, 30, 31 and 36.
already described.
Then we run.

N $89^{\circ} 5' 6''$ on a true line bet
secs 25 and 36.

9.00 Top of blue point faces S
descend.

10.06 "Salt Wash" obs N. W.

33.16 Bend in wash.

40.08 Set a small stone 18 x 12 x 4 ins
12 ins in the ground for
 $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N
face and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ high.
Wth of cor. Bits info
over rolling ground.

61.00 Ascend abruptly.

64.16 Top of ridge obs N and S.
descend.

73.06 Bottom of ridge.

- 80.16 The cor of secs 25, 26, 35 and
36.

Land mountainous.

Soil clay and rocky & dry rate.

No timber.

Mountainous land on 80.16 chs.

N $0^{\circ} 0' 4''$ in bet secs 25 and 26
descend.

8.00 Point of rock faces west. Descend

Subdivisions of T 22 S R 16 E.

26.00	Cliff south bank of "Salt marsh" dries N. w. Run up general.
34.00	North side of marsh. Ascend.
40.00	Set a limestone 14x12x4 ins 9 ins in the ground for $\frac{1}{4}$ sec corn marked $\frac{1}{4}$ on W. face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high rest of corn. Bits impracticable.
	Ascend.
44.00	E of ridge by E end on descent.
46.58	Cliff S side of marsh.
48.40	Branch of salt marsh dries west. Ascend.
- 50.00	Set a sandstone 18x8x5 ins 13 ins in the ground for corn of secs 23, 24, 25 and 26; marked with 2 notches on S and 1 notch on E edges and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high rest of corn. Bits impracticable. Land mountainous. Soil clayey and rocky 3rd and 4th rate. No water.
	Mountainous land on 50.00 ch.

58° 56' E	on a random line set secs 24 and 25.
40.00	Set tiny $\frac{1}{4}$ sec corn.
50.20	Intersect E by E of 2 chs N of corn of secs 19, 24, 25 and 30 previously described. Then we run.
	N 89° 55' W on a true line bit secs 24 and 25.
	Ascend.
12.77	E of red knoll. descend.

Subdivisions of T 22 S R 16 E.

15.00	Head of gully drs S.E. Ascend.
24.16	Tg of main rock ridge trs NE and SW. 250 ft high. Along slab rock bench
40.10	Set a sand stone 18x8x4 ins 12 ins in the ground for $\frac{1}{4}$ cor cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high N of cor. Pits impracticable.
40.28	Edges of perpendicular cliff 250 ft high faces west. descend. wash drs S.W.
45.40	wash .. S. Ascend.
67.00	The cor of secs 23, 24, 25, and 26. Sand mountains.
- 80.20	Soil rocky. 4th rule. No timber. Mountains land on 80.20
^{Note} At 8000 ft st. st. overcast can not take lat.	

	No' 04 W bet secs 23 and 24. Ascend.
17.14	Tg of cliff and bench 100 ft high. descend gradually along slab rock and sand.
25.18	Point of rocks faces west.
40.00	Set a sand stone 16x12x4 ins 11 ins in the ground for $\frac{1}{4}$ cor cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high N of cor. Pits impracticable.
- 8000	descend.
	Set a sand stone 14x8x6 ins 10 ins in the ground for cor of secs 13, 14, 23, and 24; mark with 3 notches on S and 1 notch on E edges and raised a mound of stone 2 ft high $1\frac{1}{2}$ ft high west of cor.

Subdivisions of T 22 S R 16 E

Pits impracticable.
Land mountainous.
Soil stony and sandy.
3rd and 4th rate.
No timber.

Mountainous land on 80.00 ac.

- 40.00 38° 55' E on a random line
bet secs 13 and 24.
Set tiny $\frac{1}{4}$ sec cor.
Intersect Ely of T 18 R 16 S of
cor of secs 13, 15, 19 and 24
previously described.
Hence we run.
38° 57' W on a true line bet
secs 13 and 24.
Second point of rocks.
Top of joint hrs N and S. descent
Foot west side.
Over rolling sand ridge.
40.13 Set a sand stone 14x7x5-in
10 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N fence
dig pit 18x18x12 ins E and W
of stone 3 ft - dist; and raised
a mound of earth $3\frac{1}{2}$ ft high
 $1\frac{1}{2}$ ft high N of cor.
Continue over rolling sand
hills.
The cor of secs 13, 14, 23, and 24.
Land mountainous.
Soil stony and sandy.
3rd and 4th rate.
No timber.
Mountainous land on 80.2 c ac.

Oct 18-1898.

Oct 19-1898: At 8400^{ft} m.s.n.m. we
set off 38° 54' W on the last cor and

Subdivisions of T 23 S R 16 E.

$10^{\circ} 06' S$ on the decl. arc and determine a true meridian with the solar at the con. of secs 13, 14, 23 and 24.

Thence on run.

$N 0^{\circ} 04' W$ bet secs 13 and 14.

Ascend gradually.

3017 Foot of bluff 15-0 ft high bet sec 4.
40.00 Top of bluff.

Set a sand stone 20x8x5 ins.
15 ins in the ground for $\frac{1}{4}$ sec
con marked $\frac{1}{4}$ on surface and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N. of con
This impracticable.

descended along sand and
rock beach.

- 80.00 Set a sand stone 19x8x4 in
15 ins in the ground for con
of secs 11, 12, 13 and 14 : marked
with 4 notches on S and 1 notch
on E edges, and raised a
mound of stone 2 ft base
 $1\frac{1}{2}$ ft high west of con.

This impracticable.

Land mountainous.

Soil stony and sandy.

3rd and 4th rate.

No timber.

Mountainous land on 80.00 etc

40.00 $N 89^{\circ} 57' E$ on a random
bet secs 12 and 13.

Set temp $\frac{1}{4}$ sec con.

80.30 Intersect E. bdy of P. lots N &
con of secs 7, 12, 13, and 15.
Previously described.

Thence on run.

4.50 $N 89^{\circ} 59' W$ on a true line
bet secs 12 and 13.
mark obs N.W.

Subdivisions of 9' 225 or 16 E.

4.70	Ascend abruptly.
6.30	Top of bench lies N and S.
24.00	wash obs N. Ascend.
38.00	Top of ridge N and S. descend.
40.15	Set a lava rock 20x8x8 ins 15 ins in the ground for $\frac{1}{4}$ sec ear marked $\frac{1}{4}$ on N face and raised a mound of stone 3 ft base 1 $\frac{1}{2}$ ft high North of cor. Pits impracticable.
42.50	wash obs S. asc.
53.45	Top of ridge lies N and S. descend.
80.30	The cor. of secs 11, 12, 13, and 14. Land mountainous. Soil rocky. 4th rule. No timber. Mountainous land on 80.30 obs.

N 0° 04' W bet secs 11 and 12.

Ascend.

10.80	Top of bench lies N.W. and S.E. descend gradually.
21.97	Gully obs N.E.
26.47	Point of high ridge faces E.
35.97	Head of gulch obs N.E.
37.84	Cliff 20 ft high lies E and w.
40.00	Set a sandstone 18x10x4 ins 12 ins in the ground for $\frac{1}{4}$ sec ear marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high rest of cor. Pits impracticable. Ridge about 30 ch long 400 ch wide Rock joint faces east.
47.87	Thence along west side of wash obs north.
63.90	Ledge 15 ft high points E.
70.27	wash obs N.W. descend.

Subdivisions of 5225 or 16 E

- 80.00 set a lava rock $18 \times 7 \times 6$ ins
15 ins in the ground for cor.
of secs 1, 2, 11 and 12; marked
with 5 notches on S and 1 notch
on E edges and raised a
mound of stone 2 ft base
 $1\frac{1}{2}$ ft high west of cor.
Pits impractical
Land mountainous.
Soil sandy and stony.
3rd and 4th rule.
No timber.
- Mountainous land on 80.00 etc.
Lat $41^{\circ}18'58''$: Let this cor or set
off $10^{\circ}44'5''$ on the decl arc and
at 04.00 m. L. m. t. observe the
arc on the meridian; the
resulting lat is $38^{\circ}55'N$

- 589°5' E on a random line
bet secs 1 and 12.
40.00 set tang $\frac{1}{4}$ sec cor.
80.35 intersect E edge of T.L. 6 lines N of
cor of secs 1, 6, 7, and 12.
Previously described.
Dense wood.
N 89°56' W on a true line
bet secs 1 and 12.
Descent.
3.45 wash drs N around.
10.60 Rock bluff.
15.60 Gully drs N around.
22.50 Top of bluff 40 ft high as roads.
Descent.
25.20 Bottom of bluff.
28.60 Little Grand wash drs S.W.
33.50 Top of spur faces south.
Descent.
36.00 Little Grand wash drs N.E.
Thus W. around.

Subdivisions of T 42 S or 16 E.

40.18	Set a sand stone 18x7x6 ins 12 ins in the ground for $\frac{1}{4}$ acre cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Pits impracticable.
59.60	Gulch abrs N. Ascend
63.00	Foot of small ridge as road S. Descend.
67.50	Gulley abrs N.E.
80.35	Ascend over rolling ground. The cor of sec 1, 2, 11, and 12. Land mountainous. Soil sandy and rocky. 3rd and 4th rate. No timber. Mountainous land on 80.35 chs.

	N $0^{\circ} 04'$ W on a random line bet secs 1 and 2.
40.00	Set tiny $\frac{1}{4}$ acre cor.
83.59	Intersect Nbdy of T 42 Lts E of old cor of sec 1, 2, 35 and 36 here to fore described. Ploughs are run S $0^{\circ} 14'$ E on a true line bet secs 1 and 2. Descend.
0.60	Foot of ridge as even.
5.19	wagon road bet E and W
15.14	wash abrs S.E.
25.59	wash abrs W.
33.24	wash abrs N.W.
36.09	Trail bet N.E. and S.E.
43.59	Set a sand stone 18x12x3 ins 12 ins in the ground for $\frac{1}{4}$ acre marked $\frac{1}{4}$ on S face dig pits - 18x18x12 ins N and S of stone 3 ft dist and raised a mound of earth

Sixth divisions of T 22 S or 16 E.

3 1/2 ft base 1 1/2 ft high west of cor.

- 52.4 Wash dry tract.
62.59 "Little Grand" wash dry N.W. across rolling flat covered with sage and Chihuahua brush.
68.04 Ascend.
- 83.59 The cor of secs 1, 2, 11, and 12. Land mountainous. Soil stony and sandy. 3rd and 4th rates. No timber. Mountainous land on 83.59 chs.
Oct 19-1898.

Oct 20-1898. At 8:40 a.m. last we set off $38^{\circ} 51' N$ on the lat arc and $10^{\circ} 28' S$ on the decl arc and determine a true meridian with the solar at the cor of secs 2, 3, 34 and 35 on the S. side of the T 1/2 which has been here to fore described.

- I since we run,
N $0^{\circ} 4' W$ lat secs 34 and 35.
17.00 Foot of rock bluff 100 ft high no trees. Ascend abruptly.
21.00 Top of bluff. Poor slab rock.
40.00 Foot of ledge 20 ft high faces S. Set a sand stone $14 \times 12 \times 4$ ins 10 ins in the ground for $1\frac{1}{4}$ sec cor mounted $\frac{1}{4}$ on to face and raised a mound of stone 2 ft base 1 1/2 ft high w. of cor. Bits impracticable.
Ascend.
40.37 Top of ledge. Descend.
50.39 Foot of bluff 600 N.E.S.E. on ring bottom over rolling ground trail w. N.E. S.E.
70.10

Subdivisions of 5225 or 16E

72.00	Rock knoll at mouth of "salt wash".
80.00	About 200 chs N.W. of rock knoll.
	Set a sand stone 20x8x4 ins 15 ins in the ground for cor of secs 26, 27, 34 and 35; marked with 1 notch on S and 2 notches on E edges and raised a mound of stone 3 ft base $1\frac{1}{2}$ ft high N of cor. Ris impracticable.
	Land mountainous. Soil rocky. 40% rock. No timber.
	Mountainous land on 80.00 chs.

40.00	East on a random line bet secs 26 and 35.
80.38	Set line $\frac{1}{4}$ sec cor. Intersect N and S line 19 lks N of cor of secs 25, 26, 35 and 36. Hence we run N $8^{\circ} 52' W$ on a true line bet secs 26 and 35.
40.17	Ascend over rocky points to Gulch chs N. Set a sand stone 18x14x4 ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Ris impracticable. Ascend abruptly.
41.00	Top of bluff faces N.
54.18	West edge of bluff. Second.
59.38	Foot of bluff.
72.18	Ants of "salt wash" 1.50 mile chs S.W.
77.00	" " " " " chs N.W.
80.38	The cor of secs 26, 27, 34 and 35. Land mountainous.

Subdivisions of 8228 R 16 E:

soil rocky. 47% rock.

No timber.

Mountainous land on 80.38 hrs.

N 0° 4' W bet secs 26 and 27.

0.80 Cross "salt marsh" des west. Ascend.

4.30 Top of rock ledge bet S and N. sec.
Ascend.

6.00 Top of ledge. descend gradually.

36.00 Enters rounded basin.

40.00 Set a sand stone 17x8x6 ins
15 ins in the ground for
1/4 sec cor marked 1/4 on W
face and raised a mound
of stone 2 ft base 1 1/2 ft high
or of cor. Pit impracticable.

46.70 Small cliff bet S & W.

57.00 Top of knoll bet S & E.
descend.

57.00 Wash des N. W. ascend.

64.00 Top of small ridge bet N & S E.

70.00 Wash des S. W.

78.00 Small ledge faces S. Ascend.

- 80.00 Set a lava rock 30x10x8 ins
15 ins in the ground for cor
of secs 22, 23, 26 and 27; marked
with 2 notches on S and E edges
and raised a mound of stone
2 ft base 1 1/2 ft high or of cor.
Pit impracticable.

Land mountainous.

Soil strong and sandy
47% rock.

No timber.

Mountainous land on 80.00 hrs.

At 30, 1548. At this cor we set
off 10° 32' S on the decl are and
at 0400 m. I.M.T. observe the
sun on the meridians; Then
resulting lat. is 38° 53' N.

Subdivisions of T 22 S R 16 E.

	S 89° 52' E on a random line btwn sec 23 and 26.
40.00	at Depth $\frac{1}{4}$ sec con.
80.10	Interest N and S line 6 ins S of con of secs 23, 24, 25 and 26. Please, we run N 89° 55' W on a tree line bt secs 23 and 26. Ascend.
25.00	Spur bt N and S slopes S. descend.
28.00	Top of spur. Ascend up bank obs S.E.
40.05	Set a sand stone 14x10x4 ins 10 ins in the ground for $\frac{1}{4}$ sec con marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N of we. This impracticable. Ascend.
51.00	Top of ridge bt N and S. descend along spur S west.
- 80.10	con of secs 22, 23, 26 and 27. Land mountainous. Soil rocky and sandy. 4th rule. No timber. Mountainous land on 80.10 ch.
	N 0° 41' W bt secs 22. and 23. descend.
2.55	Wash obs S.W. Ascend.
12.45	Point of rocks bt N.E. and S.W.
13.45	Cliff 15 off high descend.
17.20	Hollow obs S.W.
32.00	Canyon wash obs S.W.
40.00	Set a sand stone 20x717 ins 15 ins in the ground for $\frac{1}{4}$ sec con marked $\frac{1}{4}$ on S face and raised a mound of stone

Subdivisions of T 22 S R 16 E.

	2 ft base 1 $\frac{1}{2}$ ft high N of cor. Pits impracticable.
	Ascend.
45.50	Foot of cliff 30 ft. high.
48.45	Tg of cliff br E and W.
60.00	Foot of black and white ridge brs E and W. Ascend.
66.60	Tg of ridge. Along E slope of ridge brs N and S.
- 80.00	Set a sand stone 18x10x8 ins 12 ins in the ground for cor of secs 14, 15, 22 and 23. Marked with 3 notches on S and 2 notches on E edges and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Pits impracticable. Land mountainous. Soil rocky 4th rate No timber.
	Mountainous limestone .80.00 chs.

	S 89° 5' 5" E on a random line bet secs 14 and 23.
40.00	Set tang $\frac{1}{4}$ sec cor.
80.23	Intersect N and S line at the cor of secs 13, 14, 23 and 24. 9 fence or run.
	N 89° 5' 5" on a tree line bet secs 14 and 23.
	Ascend.
4.00	Hollow obs S. Ascend.
13.48	Tg of spur ridge brs N and S. descend.
21.18	Foot west side. Cross rolling hills.
37.48	Foot of ridge brs N or and S. E. Ascend.
40.12	Set a sand stone. 17x10x8 ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Pits impracticable.

Subdivisions of T 2 S R 16 E.

- 44.68 Top of ridge b/s N.W. and S.E.
 46.08 Foot of rock bench b/s N and S.
 58.93 Top of small ridge b/s N and S.
 62.48 Gravel b/s N.W. and S.E. Ascend.
 80.23 Cor 7 secs 14, 15, 22 and 23.
 Land mountainous.
 Soil rocky and sandy.
 3rd and 4th rate.
 No timber.
 Mountainous land on 80.23 chs.

Alt. 20-1898.

Alt 21-1898. At 8:4000 m a.m. Lmt. S
 we set off $38^{\circ}54'$ from the lat arc.
 $1049's$ on the decl arc and
 determine a true meridian
 with the solar at the cor 8
 secs 14, 15, 22 and 23.
 Thence we run.
 N $0^{\circ}41'$ bet secs 14 and 15.
 Ascend.
 Note: There is a red, white
 and blue peak, 150 ft high
 about 5.00 chs S E of cor.

- 2.83 Top of ridge point - b/s N.W. descend
 13.10 Foot of ridge.
 15.20 Gravel b/s N.W. and S.E.
 27.00 Foot of ridge b/s N.W. & S.E. Ascend.
 28.70 Top of ridge. descend.
 30.70 Foot of N side of ridge.
 35.15 Wash ab/s N.W. descend
 38.75 Top of bench. b/s N.W. S.E.
 40.00 Set a lava rock $18 \times 10 \times 4$ ins
 12 ins in the ground for 1/4 sec
 cor marked $\frac{1}{4}$ on surface and
 raised a mound of stone
 2 ft base $1\frac{1}{2}$ ft high n of cor.
 Pit impracticable.
 Wash ab/s N.W.
 Wash ab/s into above 1.00 ch west

Subdivisions of T 22 S R 16 E.

- 52.00 foot of ridge bds N.W. and E.
Ascend.
- 71.10 Top of ridge. Descend abruptly.
South side of gulch bds mostly.
Set a sand stone $14 \times 6 \times 4$ in
10 ins in the ground for cor
of secs 10, 11, 14 and 15 marked
with 4 notches on S and 2 notches
on E edges and raised a
mound of stone 2 ft base
 $1\frac{1}{2}$ ft high west of cor.
Rds impracticable.
Land mountainous.
Soil rocky 40% ruts.
No timber.
Mountainous land on 80.00 acs.
-

- S 89° 5' S E on a random line
bt secs 11 and 14.
Set tiny $\frac{1}{4}$ sec cor.
80.20 Intersect N and S line at the
cor of secs 11, 12, 13 and 14.
Hence we run
N 89° 5' S on a true line
bt secs 11 and 14.
Clear sand and rock bench.
Descending.
36.20 Top of perch bds S and N.W.
Descend.
- 40.10 Set a lava rock $20 \times 8 \times 4$ ins
15" ins in the ground marked
 $\frac{1}{4}$ on N face and raised a
mound of stone 2 ft base $\frac{1}{2}$ ft
high N of cor. Rds impracticable
descend along south slope.
- 52.00 Bottom of ridge mark desc mostly.
55.00 Lava wash north side.
74.00 Same wash bds N.W.
Ascend one point.
80.20 Cor of secs 10, 11, 14 and 15.

Subdivisions of T 2 S R 16 E.

Land mountainous. soil
Soil rocky and sandy.
4th rate.
No timber.
Mountainous land on 80.00 cbs.

No 4's bet. secs 10 and 11.
descend.
Main road des North westerly.
Descent abruptly to top of bluff
bet N.W. and S.E.
A ridge about 100 ft high bet road
S about 4.00 des E of line for a
dist of 30.00 des.
descend.

40.00 set a sand stone 14x12x7 ins
10 ins in the ground for
1/4 sec cor., . . . marked
1/4 on 4 face and raised
a mound of stone 2 ft base
1 1/2 ft high 1/2 of cor.
Pits impracticable.

54.00 Point of ridge faces W. descend.
Bottom of rock gully des N.W.
descend.

62.25 Top of ridge bet N.W. and S.E.
descend.

83.00 set a lime stone 18x7x4 ins
12 ins in the ground for
the cor of secs 2, 3, 10 and 11
marked with 5 notches on
S cor and 2 notches on E edge
and raised a mound of
stone 2 ft base 1 1/2 ft high
1/2 of cor. Pits impracticable
Land mountainous.

Soil stony and sandy.
3rd and 4th rate.
No timber.

Mountainous land on 80.00 cbs.

Subdivisions of T 22 S R 16 E.

Lat 38° 5' 55" N. At this cor we set off 10545 on the decl arc and at 0 h 00 m Gmt. observe the sun on the meridian. The resulting lat is 38° 5' 5" N.

- 5 89° 5' 5" E on a random line bet secs 2 and 11.
 40.00 Set trig $\frac{1}{4}$ sec cor.
 80.10 Intersect N and S line 4 like S. of cor of secs 1, 2, 11 and 12.
 Then we run,
 N 89 5' 7" W on a true line bet secs 2 and 11.
 2.00 Cross wash dss. N. ascended abruptly.
 5.57 Top of rock ridge bet N and S. descend.
 18.20 Foot of ridge west side.
 descend down hollow dss N.W.
 40.05 E edge wash dss N.
 Set a lime stone. 16 x 10 x 3 ins
 11 ins in the ground for $\frac{1}{4}$ sec
 cor marked $\frac{1}{4}$ on N face and
 raised a mound of stone
 2 ft base $1\frac{1}{2}$ ft high N of cor.
 Bits impracticable.
 Leave hollow ascend.
 43.50 Top of ridge bet N and S. descend.
 57.20 Bottom of wash dss N ascend.
 58.70 Top of ridge point steeper N.
 61.48 Wash dss N.
 68.00 Ridge bet N and S
 descend over small gullies.
 - 80.10 Cor of secs 2, 3, 10 and 11.
 Land mountainous.
 Soil rocky and sandy.
 3rd and 4th rate.
 No timber.
 Mountainous land on 80.10 dss.

Subdivisions of 9228 or 16 E.

- N 04° W. on a random line bet secs 2 and 3.
33.00 Set long $\frac{1}{4}$ M.C.
33.42 Left bank of Green River.
Measure across bend in river, with steel tape and find dist to tr. 45.19 chs.
78.61 Left bank of Green River.
83.61 Intercept N side of tr. 4 chs E of cor of secs 2, 3, 34 and 35.
herefore described.
Oct 21-1948. At 4:40 p.m. L.M.T.
we set off $38^{\circ}56'$ N from the last
arc; $10^{\circ}56'$ S on the decl arc and
determine a true meridian
with the solar at the cor
of secs 2, 3, 34, and 35.
There we run
S 06° E on a true line bet
secs 2 and 3.
Through dense willow brush.
Left bank of Green River.
Set a sand stone $14 \times 10 \times 4$ ins
10 ins in the ground for
meander cor of gravel secs
2 and 3; marked M.C. on S
face, with 2 notches on E face.
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.
50.0 Left bank of Green River across
bend. $\frac{1}{4}$ sec cor falls in river ^{24 ft} eastward
Set a sand stone $14 \times 10 \times 4$ ins
10 ins in the ground for
meander cor of gravel secs
2 and 3 marked M.C. on N
face with 2 notches on E
face and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft
high S of cor.
Pits impracticable.

Subdivisions of T 2 S 8 R 16 E.

- 50.61 Set a sand stone 16x12x4 ins
8 ins. in the ground for a
witness cor to $\frac{1}{4}$ sec cor
marked W.C. $\frac{1}{4}$ on or face
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
or of cor. Pit impracticable.
Ascend.
- 54.11 Top of river bluff lies NE and S. on
Rising trend lies NE and S. on.
Cor of secs 2, 3, 10 and 11.
Land mountainous.
Soil rocky and sandy.
3rd and 4th rate.
No timber.
Mountainous land on 83.61 acs.
Lat. 41-1898.

- From the cor of secs 2, 3, 4, 33
and 34 on the S. side of the M.
as heretofore described,
the run.
N 0° 5' W bet secs 33 and 34.
Ascend abruptly.
- 4.00 Top of cliff 50 ft high faces S.
Along rock bunch.
- 21.00 Rock knoll about 200 ft west of
line.
- 40.00 Set a sand stone 16x8x4 ins
11 ins. in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on or face
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
or of cor. Pit impracticable.
Point of rocks slopes east.
- 54.00 Foot of rock bluff lies S. on
Ascend.
- 55.50 Top of bluff. descended.
- 57.00 Foot of bluff N side.
- 72.00 Rock gullies lies N. on. ascend

Subdivisions of 7225 R 16 E.

77.70	Tof rock spur slopes N.W. dried abruptly.
8000	Set a sand stone 18x6x4 ins. 1/2 ins in the ground for cor. of secs 27, 28, 33, 34 marked with 1 notch on 8 and 3 notches on E edges and raised a mound of stone 2 ft base 1 1/2 ft high no cor. Bits impracticable. Land mountainous. Soil rocky. 42 rate. No timber. Mountainous land on 80.00 chs.

East on a random line
but secs 27 and 34.
Set trig 1/4 sec cor.
Point from which we make
triangulation across Green
River. In order to determine
the dist we set a flag on
line on left bank of river
then measure a base
line S 7° E 6.00 chs to a
point where the flag bears
 $N 68^{\circ} 37' E$; From the flag the
S end of the base was $S 68^{\circ} 37' W$;
therefore the angles taken
in order of measurement are
respectively 83° , $95^{\circ} 37'$, $21^{\circ} 23'$.
Their sum being 180° .

We compute the dist across
the river as follows.

$$\log \sin 75^{\circ} 37' = 9.986169 \checkmark$$

$$\log \dots 6.0^{\circ} = \frac{.778151}{10.764320} \checkmark$$

$$\log \sin 21^{\circ} 23' = \frac{9.581824}{1}$$

$$\log \text{required dist} = 1.202496 \checkmark$$

Therefore required dist = 15.94 chs.

Note: It was impossible to

Subdivisions of T 22 S R 16 E.

obtain longer base on account
of rough nature of country.

Chain East from triangulation
point 2.00 chs or $63.75 + 2.00 = 65.75$

65.75 Right bank of Green River.

Set tiny meander cor.

$$63.75 + 15.94 = 79.69$$

79.69 Left bank of Green River.

Set tiny meander cor.

80.39 Intersect N and S line 12 chs

S of cor of secs 26, 27, 34 and 35.

Hence, in river.

S $8^{\circ} 55' W$ on a true line.

bet secs 27 and 34.

0.70 Left bank of Green River.

Set a sand stone $20 \times 8 \times 4$ ins

15 ins in the ground for

meander cor of fractional

secs 27 and 34 marked N.E.

on W face with 1 notch on

S face and raised a mound

of stone 2 ft base $1\frac{1}{2}$ ft

high E of cor. Pitts are -

practicable.

14.64 Right bank of Green River.

Set a sand stone $16 \times 8 \times 4$ ins

11 ins in the ground for

meander cor of frac. secs

27 and 34; marked N.E. on

E face with 1 notch on S face

and raised a mound of stone

2 ft base $1\frac{1}{2}$ ft high E of cor.

Pitts impracticable.

Ascend.

16.64 Top of ridge bet N and S.
descend.

18.79 Gulch abt N ascend

9 of 7 bench abt N and S.

28.40 Rock gulch abt N.E. Ascend.

40.19 Set a sand stone $18 \times 10 \times 4$ ins
12 ins in the ground for top of

Subdivisions of 9225 or 16 E.

corner marked $\frac{1}{4}$ on N face
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high.
N of corn. Bits impracticable.
Ascend.

- 42.39 Top of bluff hrs N and S.
Cross bench to.
Second bluff hrs N and S.
Descend over rough ledges.
Cor of secs 27, 28, 33 and 34.
Land mountainous.
Soil rocky. 4th rate.
No timber.
Mountainous land on 8039 ds.

Oct. 22, 1898. At 9⁰⁰ a.m. a sight
is set off $38^{\circ} 5' 2''$ from the lat
arc $11\frac{1}{2}'$ s on the dial arc and
determine a true meridian
with the solar at the cor
of secs 27, 28, 33 and 34.
Thence we run.

$N 05' 42''$ bet secs 27 and 28.
descend.

- 1.40 right bank of Green River.
To determine the dist across
we set a flag on line on
left bank of river, then meas-
ure a base line 87.5° or
 15.00 dm. to a point where
the flag hrs. $N 41^{\circ} 53' E$.

From the flag the end of
the base hrs $541^{\circ} 53' S$; therefore
the angles taken in order of
measurement are respect-
ively $104^{\circ} 53'$, $33^{\circ} 57'$, $41^{\circ} 53'$,
their sum being 180° .
We determine dist across
river as follows.

Subdivisions of T 22 S R 16 E.

$$\log \sin 33^{\circ} 07' = 9.737467.1$$

$$\log \quad 15.00 = \frac{1.176091}{10.9135581}$$

$$\log \sin 41^{\circ} 58' = 9.825230^{\vee}$$

$$\log \text{ required side} = 1.088328^{\vee}$$

$$\text{Required dis} = 12.26 \text{ ds.}$$

also $14^{\circ} + 12.26$ inches.

13.66 To left bank of river.

Set a sandstone 14x8x4 ins
10 ins in the ground for
one under cor of fract seas
27 and 28; marked N.C. on
S face with 3 notches on E
face and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft
high N of cor. Pits in-
practicable.

Ascend.

24.08 Top of bank bes E and W.

36.00Leave bank enter hollow ds
W.W.

40.00 Set a lava rock 14x12x4 ins
10 ins in the ground for $\frac{1}{4}$ all
cor marked $\frac{1}{4}$ on S face and
raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.

40.50 Center of pass ds N.W.

43.00 Foot of ridge point bes N.W. S.E.
Slopes S.E. Ascend abruptly 200 ft.
Top of ridge. Descend.

53.00 Root of ridge N side.

61.50 Center of hollow ds west.

Ascend.

- 80.00 Set a lime stone 16x8x6 ins
12 ins in the ground for
cor of seas 21, 22, 27 and 28.
marked with 2 notches on S
and 3 notches on E edges and
raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high N of

Subdivisions of 7225.016 E.

com. Pits impracticable.
Land mountainous.
Soil rocky and sandy.
3rd and 4th rate.
No timber.
Mountainous land very good.

- 40.00 N 89° 55' E on a random line
bet secs 22 and 27.
Set long $\frac{1}{4}$ acre com.
Intersect N and S line 15 miles
N of com of secs 22, 23, 26 & 27.
Distance we run.
N 89° 58' E on a true line bet
secs 22 and 27. descend.
Lulch dvs S.E. ascend.
Small ridge bet N.E. and S.E.
descend abruptly.
wash dvs S descend.
Top of bench bet N and S.
Over small gullies dvs S.
wash dvs south.
40.14 Set a lime stone 14x8x5 ins
10 ins in the ground for $\frac{1}{4}$ acre
com marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of com.
Pits impracticable.
Ascend over rolling hills.
Bench slopes N.E. Ascend.
Gravel ridge bet N.E. and E.
descend.
80.28 com of secs 21, 22, 27, 28.
Land mountainous.
Soil rocky and sandy.
3rd and 4th rate.
No timber.
Mountainous land on 8.025 ac.
Oct 22-1898. At this com we
set off $11\frac{1}{2}$'s on the deal are;

Subdivisions of 922 S 916 E

and at 0400 m. l.m.t. observe
the sun on the meridian;
the resulting lat is $38^{\circ}5'3''N.$

$N 0^{\circ}5'W$ bet secs 21 and 22.

Ascend.

- 10.00 Top of ridge bis N.W. and S.E. descend.
15.00 Top of ridge N side.
22.00 Wash dries S.W.
26.50 Wash dries S.E.
35.00 Top of ridge bis E and W.
40.00 Top of horse above ridge. S.E. S.E.
Set a sand stone 18x12x4 ins
12 ins in the ground for sec
corn; mashed $\frac{1}{4}$ in. to face
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
in of corn. Bits impracticable.
Descend.
52.00 Enter rolling flat.
55.40 Gravel bis N.W. and S.E.
57.50 Small rock ridge N.W. and S.E.
Descend.
63.10 Bottom of canyon dries west.
66.75 Top of ridge 200 ft high bis N.W. and
S.E.
70.00 West side of rock knoll.
Second east side of low ridge.
80.00 Set a lime stone 18x12x4 ins
12 ins in the ground for corn
of secs 15, 16, 21 and 22; mashed
 $\frac{1}{2}$ in. N.E.; and 16 in. S.E. with
3 notches on S and E edge
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
in of corn. Bits impracticable.
Land monotonous.
Soil stony 4th rate.
No timber.
Monotonous land on 80.00 ac.

Subdivisions of T. 2 S. R. 16 E.

	S 89° 59' E on a random line bet secs 15 and 22. Set a tree $\frac{1}{4}$ sec cor.
40.00	Intersect N and S line 10 ft S of cor of secs 14, 15, 22, and 23. Dense trees.
80.37	S 89° 57' W on a true line bet secs 15 and 22. Ascend.
3.00	Top of ridge bet N and S. descend.
12.00	Hollow drs N.W. Ascend.
23.00	Ridge bet N and S.
30.00	Bench slopes N.
40.19	Set a limestone 16 x 8 x 6 ins 11 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Bits impracticable. Rock gulch drs S.E.
46.00	Top of ridge bet N and S. descend.
49.10	Gully drs N. Ascend.
53.60	Top of ridge bet N and S.
62.00	descend.
67.40	Canyon drs N. Ascend.
80.37	Cor of secs 15, 16, 21, and 22. Lived in mountains. Soil rocky wth rete. No timber. Mountainous land on 80.37 chs.

Oct 22 - 1898.

	N 05° W bet secs 15 and 16. descend.
4.80	wash drs N.W.
20.50	Main wash drs on. Ascend abruptly.
34.00	Top of ridge bet E and W.
40.00	Set a granite 15 x 10 x 3 ins 11 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on top face and raised a mound of stone

Subdivision 92 & S. 916 E.

2 ft base 1 $\frac{1}{2}$ ft high $\frac{1}{4}$ of cor.
Pits impracticable.

50.00 wash obs N.W.

over small rock ridges and
gullies ascending.

- 80.00 set a sand stone 14x4x4 ins
10 ins in the ground. for
cor of secs 9, 10, 15 and 16
marked with 4 notches on S
and 3 notches on E edges and
raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high $\frac{1}{4}$ of cor.
Pits impracticable.

Land mountainous.

Soil rocky 4th rate.

No timber.

Mountainous land on 80.00

N 89° 57' E on a random
line bet secs 10 and 15.

40.00 set tiny $\frac{1}{4}$ sec cor.

80.30 intersect N and S line 16 lbs

S of cor of secs 10, 11, 14 and 15.

Thickets or none.

88° 50' W on a true line bet
secs 10 and 15. Ascend abruptly.

Top of rock spur slopes N
descend.

5.45 wash obs N. to main wash
about 4.00 obs N.

14.90 wash 1.0 wide obs N.W. ascend
abruptly.

Top of rock bank slope N.

wash obs N.W. ascend

Top of ridge bet N and S

set a sand stone 14x12x2 ins
10 ins in the ground for
 $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N.

face and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft high

Subdivisions of T 32 S R 16 E.

	N of cor. Pits impracticable. descend.
40.25	Hollow dvs N
60.80	wash dvs N Ascend.
70.00	T of ridge b/s N and S. descend.
75.10	Head of gulch dvs N.
80.30	Cor of sec 9, 10, 15 and 16. Land mountainous. Soil rocky 4th rate. No timber. Mountainous land on 8030 ch.

Oct. 23 1898: At 9:40 a.m. I set out
on a line $38^{\circ}55'N$ on the left side
and $11^{\circ}32'S$ on the right side and
determine a true meridian
with the solar at the cor
of secs 9, 10, 15 and 16.
Hence we run.
N 05°E lat secs 9 and 10.
Ascend.

5.0.0	T of bench b/s S.W. and N.E. descend gradually.
10.25	descend abruptly.
13.30	wash dvs N.W.
14.50	large wash dvs N.E.
23.50	Gully dvs west.
28.00	T of ridge b/s E and S. descend.
31.5.0	Large wash dvs west. Ascend. Set a sand stone $14 \times 10 \times 6$ ins 10 ins in the ground for $\frac{1}{4}$ sec Cor marked $\frac{1}{4}$ on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high on of cor. Pits impracticable. descend.
40.00	wash dvs N.W. Ascend.
45.00	T of gravel bench descend.
49.50	wash dvs N.W. descend along
64.65	

Subdivision of T 22 S R 16 E.

rolling bench slopes to N.
 - 80.00 Set a boulder 16x8x4 ins
 11 ins in the ground for cor
 of secs 3, 4, 9 and 10 marked
 with 5 notches on S and 3 notches
 on E. edges. and raised a
 mound of stone 2 ft base
 $1\frac{1}{2}$ ft high or of cor.
 Pit impracticable.
 Land mountainous.
 Soil stony and sandy.
 3rd and 4th rate.
 No timber.
 Mountainous land or 80.00
 Oct. 23-1898. At this cor
 in set of 11° 56' S on the dial
 are and at 0^h 00^m L.M.T.
 observe the sun on the
 meridian. The resulting
 lat is $38^{\circ} 55' N.$

$N 89^{\circ} 50' E$ on a random line
 bet secs 3 and 10
 40.00 Set tiny pyr. cor
 80.22 Intersect N and S line 2.3 lks
 N of cor of secs 2, 3, 10 and 11.
 Hence we run west on
 a true line bet secs 3 and 10.
 descend.
 Wash obs N.W.
 Rock wash obs N. descend.
 40.11 On bench slopes to N.
 Set a sand stone 18x14x3 ins
 12 ins in the ground for $\frac{1}{4}$
 cor marked $\frac{1}{4}$ on N face and
 raised a mound of stone
 2 ft base $1\frac{1}{2}$ ft high. N of
 cor. Pit impracticable.
 Rock gully obs N. descend.
 42.10 Foot of bench obs N and S.
 44.30

Subdivisions of T 32 S R 16 E.

47.22	wash obs N.
50.00	Platter point faces N.
51.50	Gully obs N.W.
57.00	Ditch bds N.W. and N.E.
69.90	wash obs from SE to N.
76.75	wash obs N.
80.22	con of secs 3, 4, 9 and 10. Land mountainous. Soil rocky, gravelly, sandy. 3rd and 4th rate. No timber. Mountainous land on 80.22 obs.

21.50	N 5° W on a random line bt secs 3 and 4. Left bank of Green River. Set tiny meander con. To determine the dist across we set a flag on line on right bank of the river; then measure a base $589^{\circ}55'45''$ 15.00 obs to a point whence the flag bears. $N 44^{\circ}55'E$. From the flag the west end of the base bds $844^{\circ}55'45''$. Therefore the angles taken in order of measurement are respectively. 90° , 45° , 45° . their sum being 180° . We compute dist across river, as follows. $\tan 45^{\circ} = 1 \times 15.00 = 15.00$ also. $21.50 + 15.00 = 36.50$
36.50	Right bank of Green River; set tiny meander con.
40.00	Set tiny $\frac{1}{4}$ sec con.
84.25	Intersect N bdy of the T 32 R 16 $589^{\circ}28'E$ of old con of secs 3, 4, 33 and 34 heretofore described. Set a sand stone $12 \times 12 \times 3$ ins.

Subdivisions of T 22 S. or 16 E.

- 8 ins in the ground for closing
cor of secs 3 and 4, marked
C.C. on S; with 3 grooves on
E and W faces and raised
a mound of stone 2 ft base
1 $\frac{1}{2}$ ft high S of cor. Pits in-
practicable. We destroy all marks on old
cor pertaining to secs 3 and 4.
Therefore we run S 0.5° E on
a true line bet secs 3 and 4.
Ground gradually.
- 12.25 South edge of first brush slopes S.
Ground.
- 38.75 Gully drs S. W.
- 42.75 Top of first brush slopes S.
- 44.25 Foot of slopes.
Set a boulder 14x10x3 ins
10 ins in the ground for $\frac{1}{4}$
sec cor marked $\frac{1}{4}$ on W
and raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
- 47.75 Right bank of Green river.
Set a sandstone 16x10x5 ins
11 ins in the ground for
meander cor of gravel secs
3 and 4 marked N.C. on S
face, with 3 notches on E face
and raised a mound of
2 ft base 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
- 62.75 To left bank of Green river.
Set a boulder 14x10x2 ins
10 ins in the ground for meander
cor of gravel secs 3 and 4; marked
N.C. on N face with 3 notches
on E face; from which,
A cottonwood 8" diam., bds 57° 6' 15"
29 lvs dist; marked T 22 S, R 16
S 3 N.C. B.T.
- An cottonwood 10" diam. bds N 80° 45'
73 lvs dist; marked T 22 S R 16 E, 84,

Subdivisions of T 22 S R 16 E.

	M.C. B.T.
80.00	Washes E. and W. of river.
84.25	Cor. of secs 3, 4, 9 and 10. Land mountainous. Soil gravel, clay, and sand. 3rd and 4th rate. Land next to river not subject to over flow. Timber scattering cottonwood along river bank. Mountainous land on 84.25 ac.
	Oct 23, 1898.

From the cor. of secs 4, 5, 32 and
33. on S. side of T. of which has
been before described.
The river
 $N. 0^{\circ} 6' W.$ bet. secs 32 and 33.

descend.

5.00	Rock gulch drs E. east. over slate rock.
20.00	Gulch drs S.E. ascend.
32.00	T. of black ridge bet. 4. & 5. Descending to flat bet two ridges.
40.00	Set a sand stone 14x14x4 in 10 ins in the ground for $\frac{1}{4}$ sec cor mark $\frac{1}{4}$ on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N. of cor. Pit impractical. Ascend.
48.00	Foot of black rock ridge bet 5 & 6.
52.53	T. of ridge.
60.00	Foot of ridge N. side. over slate rock.
68.00	Rock bluff 75 ft high face N. Descend.
80.00	Set a sand stone 18x10x4 in 14 ins in the ground for cor. of secs 28, 29, 32 & 33. marked.

Subdivisions of T 2 S 8 or 16 E.

with 1 notch on 3 and 4 notches on E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ high west of cor. Pits impractical asle.

Land mountainous.

Soil rocky & dry rate.

No timber.

Mountainous land on 80.00 chs.

East on a run down line bet sees 28 and 33.

40.00 Set tang $\frac{1}{4}$ sec cor.

45.25 To right bank of Green River set tang meander cor.

It being impossible on account of the rough nature of the country to measure a base of sufficient length for triangulation we run offset line as follows around bend in river.

$S 65^{\circ} 30' E$ 9.00 chs.

$S 88^{\circ} E$... 5.00 "

$N 76^{\circ} 47' E$ 17.14 "

To a point on line due east from starting point.

We find the total = to
be 29.87 chs and the
in northings and southings to
be ± 12 of a link.

45.25 + 29.87 = 75.12

Right bank of Green River across bend. Set tang meander cor. intersect N and S line 2 links

S of cor of sees 27, 28, 33 and 34. Hence we run

$S 89^{\circ} 5' E$ on a true line bet sees 28 and 33.

descend over rock ledge 30 ft high.

Set a sand stone 14 x 8 x 3 ins.

5.15

Subdivisions of T 22 S or 16 E.

- 10 ins in the ground; form meander cor of fract seas 28 and 33, marked N.C. on E face with 1 notch on S face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high East of cor. Pits impracticable.
Right bank of Green river.
Set a sand stone $18 \times 10 \times 3$ ins 12 ins in the ground for meander cor of fract seas 28 and 33, marked N.C. on E face, with one notch on S face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high to of cor. Pits impracticable. Ascend.
- 40.14 East slope of rock bluff.
Set a sand stone $14 \times 10 \times 4$ ins 10 ins in the ground for 44 sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N.B cor. Pits impracticable. Ascend.
- 41.20 Top of bluff bet N.W. and S.E.
- 61.15 Junction of 3 gulches from S.E. S, and S.W. known as "Eagle Gate". Crossed over rock points South side of wash does East.
- 74.00 Cross head in wash. Ascend.
- 80.27 Cor of secs 28, 29, 32, and 33. Land mountainous.
Soil rocky 4 th rate.
No timber
Land next to river not subject to over flow.
Mountainous land on 80.27 chs.

Subdivisions of 5225 & 16 E.

- Lat. 34° 18' 48" At 10^h 00 m A.m. loc.
 set of 38° 52' N on the lat
 11° 55' S. on the decl. are used
 to determine a true meridian
 with the solar at the even
 of sec. 28, 29, 32 and 33.
 Hence we run
 N 0° 6' W bet sec. 28 and 29.
 descend.
 5.00 Large marsh obs. East. ascend.
 11.20 T. of spur slopes east.
 12.00 Marsh obs. east.
 Ascend abruptly.
 31.00 T. of bench 280 ft high. obs
 N E and S W. descend
 gradually.
 40.00 Set a sand stone 16x14x4 ins
 12 ins in the ground for cor.
 Cor marked $\frac{1}{4}$ in on top face and
 raised a mound of stone
 2 ft base $1\frac{1}{2}$ ft high or of cor.
 Bits impracticable
 descend.
 62.70 North edge of bench. descend.
 into red basin.
 73.80 Bottom of basin obs. north.
 ascend.
 80.00 Set a lava stone 18x10x5 ins
 12 ins in the ground for cor.
 8 sec. 30x21, 28, and 29.
 marked with 2 notches on S
 and 4 notches on E edges. and
 raised a mound of stone
 2 ft base $1\frac{1}{2}$ ft high or of cor.
 Bits impracticable.
 Land mountainous.
 Soil rocky and sandy.
 3rd and 4th rates.
 No timber.
 Mountainous land on 80.00 chs.

Subdivisions of 522916 E.

- N 89° 59' E on a random line
bet secs 21 and 28.
31.60 Right bank of Green River.
Set long meander cor.
To determine the dist across, we
set a flag on line on left
bank of river; then measure a
base line N 0° 1' W 1000 chs to a
point whence the flag bears N 43° 34' E
From the flag the N end. of the
base line N 43° 34' W, therefore the
angles taken in order of meas-
urement are respectively,
 90° , $43^\circ 33'$, $46^\circ 27'$, their sum
being 180° and we compute dist
across river as follows.
 $\text{tang } 43^\circ 33' = .90062$
 $.90062 \times 1000 = 14.26 \text{ chs. also}$
 $14.26 + 31.60 = 45.86$
- 45.86 Left bank of Green River.
Set long meander cor.
80.11 Intersect. N and S line 30 chs
N of cor of secs 21, 22, 27, and 28.
These are run.
N 89° 48' W on a true line bet
secs 21 and 28.
Second.
- 10.00 Head of marsh drs S.W.
11.00 near edge of marsh. descend to river.
24.00 drift drs N.W.
30.00 South side of bend in same west.
Since $\frac{1}{4}$ sec cor will fall in
river; at this point we
set a sandstone $18 \times 6 \times 4$ ins
12 ins in the ground for witness
cor to $\frac{1}{4}$ sec cor, marked.
W.C. $\frac{1}{4}$ on N face and raised
a mound of stone 2 ft
base $1\frac{1}{2}$ ft high N of cor.
Pit impracticable.
Left bank of Green River.
- 34.25

Subdivisions of T 22 S R 16 E.

Set a sand stone 16x7x3 ins
11 ins in the ground for mea-
sure cor of fract secs 21 and 28,
marked N.C. on W face with
2 notches on S face and raised
a mound of stone 2 ft base
1½ ft high East of cor.
Pits impracticable.

48.57

Right bank of Green River.
Set a sand stone 18x6x4 ins.
12 ins in the ground for
measurer cor of fract secs, 21
and 28 marked N.C. on E f
with 2 notches on S face and
raised a mound of stone
2 ft base 1½ ft high west of cor.
Pits impracticable.

Ascend abruptly.

5-0.61

T of lower branch bet N and S.

5-9.11

Ascend abruptly.

6-2.90

T of ridge bet N and S.

6-8.41

Brule bet N and S

7-2.50

West side of ridge. Descend

-8-0.11

Cor of secs 20, 21, 28, 29.

Land monotonous.

Soil sandy and rocky.

3rd and 4th rate.

Scattering cottonwood on
E bank of river.

Monotonous land on 80.11 obs.

Oct 24, 1898. At this cor we
set off 11°57' on the decl arc
and at 0°00' lat. observe
the sun on the meridian.
The resulting lat is 38°03' N

N. 0.6° W. bet secs 20 and 21.
Ascend.

3.40

T of open slopes west.

8.00

T of ridge front faces west

Subdivisions of 9228 Oct 16 E.

18.90	descend abruptly
28.40	Foot of steep descent.
36.30	descend gradually.
	Bottom of gully does not descend abruptly.
38.00	Top of bench. Bns 2 and 15.
40.00	Set a sandstone 18x6x6 ins 12 ins in the ground for sec cor marked $\frac{1}{4}$ m. to face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high or of cor. Pits impracticable.
	descend.
65.00	Wash does S.E. ascend.
72.15	Top of ridge bns N and S.E. descend.
79.40	Head of wash does S.E. ascend.
80.00	Set an sandstone 20x8x6 ins 15 ins in the ground for cor of secs 16, 17, 20, and 21; marked with 3 notches on S and 4 notches on E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high or of cor. Pits impracticable.
	Land mountainous.
	Soil stony and sandy.
	No timber.
	Mountainous based on 8000 ft.

58° 48' E on a random line
bet secs 16 and 21.
Set tiny $\frac{1}{4}$ sec cor.
right bank of Green River.
Set tiny one under cor.
To determine the clift across, we set a flag on line on left bank of river;
then measure a base line 512' or 8.00 to a point where
the flag lies, $1143^{\circ} 14' E$. From the

Subdivisions of T 22 S R 16 E

along the sand of the base bro
trs. S. 43° 14' W.; therefore the
angles taken in order of
measurement are resp
 $90^\circ - 43^\circ 02'$, $46^\circ 08'$. Their sum
being 180° and we compute
dist across river as follows.
 $\tan .43^\circ 02' = .93360$
 $.93360 \times 8 = 7.47$ chs.
 $7.47 + 46.68$ estates.

- 54.02 Left bank of Green River.
Set trig meander cor.
Intersect N and S line. 4 lks
S of cor of secs. 15, 16, 21 and 22.
Therein we run N $89^\circ 30' W$
on a true line bet secs 16 and 21.
Ascend abruptly.
Top of twin peak ridge. trs. E & S.
descend.
30.00 marsh. dss. N. w. cross tract N.E. and S.E.
Rock ledge faces river descend.
3.0 ft.
21.00 Left bank of Green River
Set a sand stone 24x6x4 ins
18 ins in the ground for
meander cor of front sec
16 and 21 marked N.C. on W
face with 3 notches on S
from which.
A cottonwood 12" diam. trs
 $N 26^\circ 15' W$ 71 lks dist marked
T 22 S R 16 E S 16 N.C. B.T.
A cottonwood 6" diam. trs
 $S 31^\circ E$ 36 lks dist marked
T 22 S R 16 E S 21 N.C. B.T.
33.92 Right bank of Green River.
Set a sand stone 18x8x4 ins
12 ins in the ground for
meander cor of front sec
16 and 21 marked N.C. on E
face with 3 notches on S face

Subdivisions of T 2 S 8 R 16 E.

- and raised a mound of
stone 2 ft base 1 $\frac{1}{2}$ ft high
N of cor. Pits impracticable
since trail lies N.E. and S.
ascend.
- 36.40 Top of lower placer bluff.
trs. N.E. and S.
- 40.23 Set a sand stone 10x8x4 ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
Ascend gradually.
- 48.00 Ascend abruptly.
- 51.30 Top of blufftrs. N and S.
descend.
- 60.35 Rock rug trs N.E. and S.E.
descend over rolling hills
and small gullies.
- 70.00 marsh obs S ascend.
- 80.47 Cor of secs 16, 17, 20 and 21.
Land mountainous.
Soil rocky and sandy
3rd and 4th rate.
Scattering cottonwood along
left bank of river.
Mountainous land on 80.47 sec.
- Oct 24 - 1888.

- N of trs but secs 16 and 17.
Ascend over rolling hills.
Top of rock bluff. 50 ft high
trs E and W. Descend
gradually.
- 19.80 Set a sand stone 10x8x6 ins
11 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on S face
and raised a mound of
stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor

Subdivisions of T 22 S R 16 E

Pits impracticable.

- 44.00 Cross road obs N
- 49.00 - cross some wash obs N
- 53.30 " " " " "
- 56.00 Edge of rock bluff face N.E.
descend.
- 58.00 Foot of bluff.
- 62.60 River bank obs N.W. S.E.
- 64.43 Right bank of Green River
Set a sand stone 16 x 5 x 4 in
This in the ground for marks
cor of fract sides 16 and 17
marked N.C. on N face with
4 notches on E face; from
which

A cottonwood 10" diameter obs
 $S 45^{\circ} 45' W$ 42 lbs chit
 marked T 22 S R 16 E S 17 N.C. B.T.
 A cottonwood 10" diam obs.
 $S 25^{\circ} E$ 51 lbs chit. marked.
 T 22 S R 16 E S 16 N.C. B.T.

To determine dist across we
 set a flag on line on left
 bank of river; Then measure
 a base line $N 60^{\circ} 06'$ m 12.00 chs
 to a point, whence the flag obs.
 $N 60^{\circ} 46' E$. From the flag. W end
 of base obs 56046' ; Therefore
 the angles taken in order of
 measurement are respectively

$60^{\circ} 1' 59'' 08'$, $60^{\circ} 52'$, This angle
 being 180° and we compute
 dist across river as follows.

$$\log \sin 59^{\circ} 08' = 9.933671$$

$$\log . 12.00 = \frac{1.079181}{11.0128521}$$

$$\log \sin 60^{\circ} 52' = \frac{9.9412581}{11.015971}$$

$$\log \text{ required side} = 1.0715971$$

$$\text{Therefore required side} = 11.80' \text{ chs}$$

$$\text{also } 11.80 + 64.43 = 76.23$$

76.23 Left bank of Green River.

Subdivisions of T 2 S R 16 E.

Set a. lime stone. 1.6 x 5 x 4 ins
12 ins in the ground for
meander cor of fract. secs 16 and
17 marked N.C. on S face with
4 notches on E face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high. N of cor.
Pits impracticable.

80.00 Set a sand stone 16 x 8 x 4 ins
11 ins in the ground for
cor of secs 8, 9, 16 and 17.
marked with 4 notches on
S and E edges and raised
a mound of stone. 2 ft base
 $1\frac{1}{2}$ ft high $\frac{1}{2}$ ft cor.
Pits impracticable.

Land monotonous.

Soil rocky, gravel and sand.
3rd and 4th rate.

Scattering cottonwood
along river banks; not
subject to overflow.

Moratorium land on 8000 ds.

S $89^{\circ}50' E$ on a random
line bet secs 9 and 16.

40.00 Set line $1\frac{1}{4}$ sec cor.

80.20 Intersect. N and S line 16 ths
S of cor of secs 9, 10, 15 and 16.
At 25' 188 ft. At 94 a m. a m. pt.
set off $38^{\circ}5' N$ on the lat
arc and $12^{\circ}15'$ on the decl arc
and determine a true
meridian with the solar
at the cor of secs 9, 10, 15 and
16. Then set cor line.

N $89^{\circ}57' W$ on a true line
bet secs 9 and 16.

Assumed.

Top of bench to E and W.

4.61

Subdivisions of T 22 S R 16 E.

6.46	west edge land in brush. descend.
20.00	Gully drs South.
32.00	ascend along dy.
37.52	N. of N. of beach. Descend.
39.90	(Wash) drs S. w.
40.10	Set a sand stone 16x10x4 ins 11 ins in the ground for $\frac{1}{4}$ sec con marked $\frac{1}{4}$ on N face and raised a mound of stone 3 ft base 1 $\frac{1}{2}$ ft high N of con. Pits impracticable. descend over rolling sand hills.
48.00	wash drs South.
54.00	" " "
70.00	Trail bds N.W. and S.E. descend over bluffs.
80.16	Trail bds N.W. and S.E.
80.20	Cor of secs 8, 9, 16, and 17. Land mountainous. Soil gravel and sand. No timber. mountainous land on 80.20 drs.
40.00	From cor 8, 9, 16, 17 Smoke stack Gold Plant bds N 42° 30' W $N 0^{\circ} 6' W$ - bet secs 8 and 9. over rolling sand hills on west side of bar. descend. Set a boulder $1\frac{1}{4} \times 7 \times 4$ ins 10 ins in the ground for $\frac{1}{4}$ sec con marked $\frac{1}{4}$ on N face; dig pits 16x18x12 ins N and S of stone 3 ft and raised a mound 2 earth 3 $\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft. high west of con.
61.15	West edge of plater bar descend.
61.75	Trail bds E and W.
65.90	wash drs N.W. Wash 2.00 ch wide
80.00	Set a sand stone 20x8x4 ins

Subdivisions of T 2 S R 16 E.

15 ins in the ground for cor.
of secs 4, 5, 8 and 9 marked
with 5 notches on 8 and 4 notches
on E edges; dug pits in each
sec 5 ft deep; and raised
a mound of earth 4 ft base 2 ft
high in of cor.

Land rolling.

Soil sandy sand and 3rd rate.
No timber.

Rolling land on 80.00 chs.

Lat $42^{\circ} 18' 8''$. At this cor we
set off $12^{\circ} 17' 8''$ on the decl arc
and at 800 m dist. observe
the sun on the meridian.
The resulting lat is $38^{\circ} 55' N.$

$58^{\circ} 5.7' E$ on a random
line bet. secs 4 and 9,
set tang $\frac{1}{4}$ sec cor.

40.00
80.00
Intersect N and S line at the
cor of secs 3, 4, 8 and 10.
Thence we run.

$N 89.57' W$ on a true line
bet secs 4 and 9. Descend.
Trail bus N.E. and S.W.

11.15
17.80 wash dir N. thence on
N slope over rolling sand hills.
Set a lime rock $12 \times 8 \times 6$ in
8 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.

Over rolling sand hills
and through scattering sage
brush.

80.20 The cor of secs 4, 5, 8 and 9.
Land rolling.
Soil sandy sand and 3rd rate

Subdivisions of T 22 S R 16 E.

No timber.

Rolling land on 8020 acres.

- N 0° 6' W on a random line
bet secs 4 and 5.
- From cor of secs 4, 5, 8, and 9
Smoke stack Gold Plant hrs. 522.45
Mat Hartman's cabin hrs N 73° 0' W.
- 28.40 Left bank of Green River
Set long meander cor.
To determine the dist
across, we set a flag on
line on right bank of river,
then measure a base N 89° 54' E
10.00 chs to a point where the
flag hrs N 44° 50' W. From the
flag the East end of the base
hrs S 44° 50' E; therefore the
dist is,
- long of $45^{\circ} 16'$ x base or
 $1089.35 \times 10 = 1089$ chs,
making the total dist from
meander cor 10.09 chs which
added to 29.40 chs makes
- 39.49 To right - bank of Green River
Set long meander cor.
- 40.00 Set long $\frac{1}{4}$ sec cor.
- 85.00 Intersect N bdy of T 22 1.62 chs
S 88.30 E. of old cor v secs 4, 5,
32 and 33, heretofore described.
Therefore,
- Set a sand stone 18x12x8 ins
12 ins in the ground for
closing cor of secs 4 and 5
marked C.C. on S with 4 grooves
on E and 2 grooves on W faces
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
- S of cor Pits in it
we destroy all marks on old cor certain
to secs 4 and 5 " on
These we run S 0° 6' E " on

Subdivisions of T 22 S 03 E.

- a true line bet secs. 4 and 5.
descend.
- 1800 mask obs 8.5. ascend over
rolling hills.
- 34.00 Top of Black spur faces west.
descend.
- 40.00 Foot of spur enter river
bottom covered with dense
willow brush.
- 45.00 Set a sand stone 14x8x6 ins
10 ins in the ground for $\frac{1}{4}$
sec cor marked $\frac{1}{4}$ cor on face;
dig pit 18x18x12 ins N and
8 ft of stone 3 ft dist and raised
a mound of earth 3 $\frac{1}{2}$ ft
base 1 $\frac{1}{2}$ ft high N of cor.
- 45.51 To right bank of Green River.
Set a sand stones 24x9x4 ins
18 ins in the ground for
meander cor of fract. sec.
4 and 5 marked N.C. on S
face with 4 notches on E
face; dug a pit 36x36x12 ins
8 ft N of stone and raised
a mound of earth 4 ft base
2 ft high N of cor.
- 55.60 To left bank of Green River.
Set a conglomerate rock 16x8x6 ins
11 ins in the ground for
meander cor of fract. sec
4 and 5 marked N.C. on
N face with 4 notches on
E face and raised a
mound of stone 3 ft base
1 $\frac{1}{2}$ ft high S of cor. Pits
impracticable.
Since $\frac{1}{4}$ sec cor is close
to river and may be
destroyed by natural causes
therefore at
56.00 we set a boulder 12x8x4 ins

Subdivisions of T 22 S 9 16 E.

Lines in the ground for a witness cor to $\frac{1}{4}$ acre cor marked W.C. $\frac{1}{4}$ acre to face from which

A cottonwood 10" diam has
S 84° 30' N 75' E dist. marked
W.C. $\frac{1}{4}$, S 5 B.T.

A cottonwood 12" diam has
S 79° E 1.21 ch dist marked
W.C. $\frac{1}{4}$, S 4 B.T.

Also from this cor
Mat Hartman's cabin
has S 58° E.

Drive through cottonwoods
Leave trees still in place
and sage brush to

64.00 Cor of secs 4, 5, 8 and 9.
Land mountainous.

Soil sand and gravel.
1st and 2nd rates.

Finer scattering cotton
wood along river bank
Bank subject to over flow
in extreme high water.
Mountainous land on 85.00 chs.

Cot. 25-1888.

From the cor of secs 5, 6, 31 and
32 on the S bdy of T of which
has been heretofore described
as river.

No 6' or lot secs 31 and 32
descend.

6.00 Bottom of gulch obs N.E.
descend.

20.95 T of spur has E and on slope E
descend.

35.00 Top of spur N side.

36.00 ascend,

38.00 T of lower spur slope E

Subdivisions of T. 22 S R 16 E.

40.00	Set a flint rock 18x6x4 in 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high to of cor. Bits impracticable. Ascend $\frac{1}{4}$ sec in mounds N.W.
44.35	To top of bench bes N.W. and S.E. wash dries on.
68.00	West slope of bench in bench. Set a lava rock 14x8x4 ins 10 ins in the ground for cor of secs 29, 30, 31 and 32. Marked with 1 notch on S and 5 notches on E edges and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high to of cor. Bits impracticable. Land mountainous. Soil rocky and sandy. 3rd and $\frac{1}{4}$ th rate. No timber.
80.00	Mountainous land or 80.00. East on a random line bet secs 29 and 32. Set bould $\frac{1}{4}$ sec cor. Intersect N and S line at the cor of secs 28, 29, 32, and 33. There we run road on true line bet secs 29 and 32. Ascend.

40.00	Cross rock gulch dries N.E. ascend.
21.00	Ascend abruptly.
26.27	Dry of stuff bes N.E. and S.W.
40.00	Set a lava rock 14x10x3 ins 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound

Subdivisions of 722 S R 1 C.E.

of stone 2 ft base 1 $\frac{1}{2}$ ft high
N 7° E. Bits impracticable.
Dredged.

46.00 Top of low rock ridge by N.W. S.E.
50.00 Dredged to sand flat.
78.00 West edge of bluff 100 ft high.
Dredged.
- 8000 Cor of secs 29, 30, 31 and 32.
Low and mountainous.
Soil stony and sandy.
No trees.
Mountainous land on 8000 ft.

Set 201598. At 9 $\frac{1}{2}$ 00 a.m. first.
We set off $38^{\circ}52' E$ on the lat
arc, $12^{\circ}35'S$ on the decl arc
and determine a true meridians with the solar at the
cor of secs 29, 30, 31, and 32.
Distance we run.
West on a random line
bet secs 30 and 31.
40.00 Set tiny $\frac{1}{4}$ sec cor.
8487 Intercept to top of Bluff 15 ft S of
cor of secs 29, 30, 31, and 32 which
had been heretofore described.
Hence we run $38^{\circ}54'E$ on
a true line bet secs 30 and 31.
Arr anch flat.
2015 Foot of bluff by N.W. and S.E.
28.00 Top of bluff. Dredged.
33.30 Foot of bluff east side, where
along bottom of broken red bank.
4487 About 4.00 ch N.W. of small
flat-topped knoll.
Set a lava stone 18 x 8 x 8 ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked by on N face and
raised a mound of stone
2 ft - base 1 $\frac{1}{2}$ ft - high N 8° E.

Subdivisions of 922s R 16 E.

Pits impracticable.

Assess of land of basin obs
S.E.

- 8487 About - 4.00 acs from T. of branch.
The cor. of secs 29, 30, 31 and 32.
Land mountainous.
Soil rocky 4th rule.
No timber.
Mountainous land on 84.87 obs.
Lat - 36° 18' 48". At this cor we set
off 12° 38' S on the decl. arc; and
at - .0400 m from b. obs over the
sum on the meridian;
the resulting lat is 38° 5' 2" N.

N 0° 06' W bet. secs 29 and 30.
Assess.

T. of branch bns N.E. and S.W.
Assess.

T. of rock spur slopes N.E.

Port of spur.

Set a lava rock 12x10x5 ins
8 ins in the ground for 1/4 sec
cor marked 1/4 on W face and
raised a mound of stone 2 ft
base 1 1/2 ft high in 8 cor.

Pits impracticable.

Assess over rolling country
sloping N.E.

Trail bns N.E. and S.W.

Set a lava rock 14x8x5 ins 10
ins in the ground for cor of
secs 19, 20, 24 and 30 marked
with 2 notches on S and 5 notches
on E edges and raised a
mound of stone 2 ft base
1 1/2 ft high west of cor.

Pits impracticable.

Land mountainous.

Soil strong and sandy.

Subdivisions of T 22 S R 16 E.

3rd and 4th rate.

No timber.

Mountainous land on 80.00 chs.

East on a random line bet
secs 30 and 29.

40.00 Set - terr $\frac{1}{4}$ sec cor.

80.00 Intersect N and S line 4 lbs No 8
cor of secs 20, 21, 28. and 29.

Plane on same $N 89^{\circ} 58'$ or
on a true line bet secs 30 and 29.
Second over slide rock.

4.00 Bottom of red basin obs N.
Ascend.

8.00 Top of bench obs N.W. and S.
Tunnel along N edge of bench
over banks of gulches drain-
ing to north.

39.00 Trail obs N.E. and S.W.

40.00 Round cone obs 340° or about
10.00 chs dia.

Set a sand stone $16 \times 12 \times 4$ in
11 in in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N.G. cor.

Pits impracticable.

West edge of bench. descend.
wash obs N.

5.000 " obs N.E. Ascend.

9 of rock point faces south.

8.00 dry wash obs N.E.

72.00 Trail obs N.E. and S.W.

- 80.00 About 3.00 chs south of lava
ridge obs N.W. and S.E.

Decor of secs 19, 20, 23 and 30.

Land mountainous.

Soil stony 3rd and 4th rate.

No timber.

Mountainous land on 80.00 chs.

Subdivisions of T 22 S of 16 E.

- N $89^{\circ}54'W$ on a random line
but sees 19 and 30.
40.00 Set - topf $\frac{1}{4}$ see cor.
84.44 Interval - to top of S. f. S. the
S of cor of sees 19, 24, 25 and 30
which has been heretofore described.
Hence we run $88^{\circ}51'E$ on
a true line but - sees 19 and 30.
Over rolling bench.
Top of bluff has N and S descent.
wash dries N ascend.
42.94 Top of ridge has N and S.
44.44 Foot of ridge east-side.
Set - a lime stone $12 \times 10 \times 4$ ins
8 ins in the ground for $\frac{1}{4}$ see
cor marked $\frac{1}{4}$ on N face
and raised a mound of stone
2 ft - base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.
48.50 wash dries north. Ascend.
52.00 Rock spur slopes south. Descend.
53.09 wash dries N
60.44 wash dries N. Ascend.
62.50 Top of bench has N and S.
Hence over broken bench.
84.44 The cor of sees 19, 20, 28, and 30.
Land mountainous.
Soil stony and sandy.
3rd and 4th rule.
No timber.
Mountainous land at 84.44 ch.
- Oct 26 - 1878.

$110^{\circ}6'W$ but sees 19 and 20.

Ascend.

- 4.00 Top of small ridge has N and S &
descend.
13.00 Valley dries E Ascend
16.00 Foot of ridge has S & W. Ascend.
Top of ridge. descend.

Subdivisions of T 22 S R 16 E.

- 21.00 Top of bench facing N.W. descend.
 40.00 Set a sand stone $18 \times 10 \times 4$ in
 12 in in the ground for $\frac{1}{4}$ sec
 cor marked $\frac{1}{4}$ in to face and
 raised a mound of stone
 2 ft base $1\frac{1}{2}$ ft high west of cor.
 Bits impracticable.
 43.10 Bench obs N.E.
 60.00 Wash obs East.
 64.00 Large wash obs N.E.
 - 80.00 Set a large stone $14 \times 8 \times 4$ in
 10 in in the ground for cor of
 secs 17, 18, 19, and 20; marked
 with 3 notches on S and 5 notches
 on E edges and raised a mound
 of stone 2 ft base $1\frac{1}{2}$ ft high
 west of cor. Bits impracticable.
 Land mountainous.
 Soil strong and sandy.
3rd and 4th rule?
No timber.
 Mountainous land on 8000 obs.

- Alt 27, 1888: At 9:00 a.m. L.M.C.
 we set off $38^{\circ}54'N$ on the lat arc
 and $12^{\circ}55'S$ on the decl arc; and
 determine a true meridian
 with the solar, at the cor of
 secs 17, 18, 19, and 20.
 I hence on run.
 $S 89^{\circ}58'E$ on a random line
 bet secs 17 and 20
 40.00 Set tang $\frac{1}{4}$ sec cor.
 80.03 Intersect N and S line 100 ft
 S of cor of secs 16, 17, 20 and 21
 I hence on run $S 89^{\circ}55'E$
 on a true line bet secs 17 and 20.
 Valley obs S.E. ascend.
 Wash where three meet obs S.E.
 21.00 wash obs S.E.

Subdivisions of T 22 S 916 E.

31.50	Wash drs S.E.
40.01	Set a boulder 14x6x4 ins 10 in in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $\frac{1}{2}$ ft high N of cor. Pits impracticable.
55.00	Point of spur slopes south.
64.50	Wash 1.00 ch wide drs N. Ascend.
80.03	N East - slope of Black ridge The cor of secs 17, 18, 19 and 20. Land mountainous. Soil rocky and sandy 3rd and 4th rule. No timber. Mountainous land on 80.03 chs
	$N 89^{\circ} 37' W$ on a random line bet-secs 18 and 19.
40.00	Set bung $\frac{1}{4}$ sec cor.
84.07	Intersect west bdy of T 20 ths N of cor of secs 13, 18, 19 and 24. Hence we run east - on a true line bet-secs 18 and 19. Over rolling brush.
27.30	Trail hrs N.E. and S.W.
33.60	Trail and old wagon road hrs N.E. & S.W.
34.00	Head of wash drs N.
44.07	Foot of knoll west side. Set a sand stone 14x8x4 ins 10 in in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $\frac{1}{2}$ ft high N of cor. Pits impracticable.
71.00	Top of knoll hrs N and S. Dredged.
76.00	Valley drs East.
84.07	Top cor of secs 17, 18, 19 and 20. Land mountainous. Soil rocky and sandy. 3rd and 4th rule. No timber. Mountainous land on 84.07 chs.

Subdivisions of 922 S 816 E.

N 0° 6' W bet. secs 17 and 18.
descend.

800 Head of wash obs north.
descend down wash.

4000 West bank of wash.
Set a sand stone 14 x 12 x 3 ins
10 ins in the ground for 1/4 sec
com marked 1/4 on its face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high 17 of cor.
Pits impracticable.

44.60 S bank of large wash. obs N.E.

50.40 North bank of large wash obs N.E.

56.00 Top of rock spur slopes west.
Ascend.

6000 Top of ridge obs E and W.
descend.

68.00 Trail obs N.E. and S.W.
Ascend gradually.

80.00 Set a granite rock 20 x 6 x 4 ins
15 ins in the ground for cor
of secs 7, 8, 17 and 18 marked
with 4 matches on 8 and 5
on E edges and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
west of cor.

Pits impracticable.

Land mountainous.

Soil sandy, 3rd rate.

No timber.

Mountainous land on 800 rods.

Oct. 27, 1898; - At this cor or
set off $12^{\circ} 56' 8''$ on the decl. arc
and at $0^{\circ} 40' 0''$ from E observe
the sun on the meridian
the resulting lat is $38^{\circ} 5' 5'' N$

$N 89^{\circ} 5' 5'' E$ on a random line
bet secs 8 and 17.

40.00 Set - cor of 1/4 sec cor.

Subdivisions of 922 S 816 E.

- 56.10 To right bank of Green River.
Set - tiny meander cor.
To determine dist across we
set a flag no 2 on line on
left bank of river. It being
impossible on account of the
rough nature of the country to
measure a base of sufficient
length for triangulation on
the right bank, we leave flag
No 1 at this point and cross
to flag no 2. from which we
measure a base line $100^{\circ}5'W$
 $20^{\circ}20'E$ to a point where flag
No 1 lies $S\ 45^{\circ}47'W$. From flag No 1
the N end of base lies $N\ 45^{\circ}47'E$;
Therefore the dist. is tan $44^{\circ}8' \times$ base
 $or .97020 \times 20 = 19.40$ which added
to 56.10 makes.
- 78.50 To left bank of Green River.
Set - tiny meander cor.
- 80.01 Intersect N end S line 2 lks
S of cor of secs 8, 9, 16 and 17.
I hence run $S 89^{\circ}54'W$ on
a true line bet. secs 8 and 17.
Descent.
- 4.51 In cottonwood trees.
Set - a sand stone 16 x 8 x 4 ins
12 ins in the ground for meander
cor of fract secs 8 and 17, marked
with 4 notches on S face; with
M.C. on W face from which.
A cottonwood 18" diam lies
 $S 38^{\circ}30'E$ 78 lks dist marked
922 S 816 E S 17 M.C. 03.?
- A cottonwood 16" diam lies
 $N 11^{\circ}E$ 50 lks dist marked
922 S 816 E S 8 M.C. 03.?
- 23.51 Right bank of Green River.
Set - a shale rock. 16 x 10 x 6 ins
11 ins in the ground for meander

Subdivisions of 9228 B 16 E.

- cor of first secs 8 and 17;
marked N.C. on E face; with 4
nipples on S face and raised
a mound of stone 2 ft. base
 $1\frac{1}{2}$ ft. high west of cor.
Pits imperceptible.
Ascend abruptly.
- 34.01 Top of rock spur slopes N.E. Descend.
Foot of spur.
- 37.76 Large wash in cottonwood trees
drs N.E.
- 40.00 North bank of wash.
Set a sand stool $14 \times 10 \times 4$ ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face
from which,
A cottonwood 30" diam. brs
 $S 23^{\circ} 30'$ or 60 ft. dist.; marked,
 $\frac{1}{4} S 17 B.P.$
A cottonwood 36" diam. brs
 $N 14^{\circ} E$ 2.42 chs dist. marked,
 $\frac{1}{4} S 8 B.P.$
Descend.
- 43.00 Enter same wash as above
drs S.E.
- 46.00 Leave wash at cliff 30 ft. dist
faces south. wash drs N.E.
Foot of bench ascend.
- 58.01 Top of bench ascends.
Top of bench brs N and S.
- 62.00 Descend gradually.
The cor of secs 7, 8, 17 and 18.
Sand mountainous.
Soil rocky and sandy.
2nd and 4th rate.
- 70.01 Peribee Cottonwood along river.
Mountainous land on 800 ft. chs.
- Oct-27, 1888.

West on a random line
bet secs 7 and 18.

Subdivisions of 9225 or 165.

40.00	Set - being $\frac{1}{4}$ sec cor.
53.65	Intersect - Dr body of T at the cor of secs 7, 12, 13 and 18 which has been heretofore described. T turns on run east - on a true line bet - secs 7 and 18. descent
65.00	Gulch drs N.E. ascend
3.65	Spur slopes N.
10.65	Gulch drs N.E. ascend.
11.00	T of ridge drs N and S. descend gradually.
33.65	wash drs S.E.
43.65	Set a shale rock 18x10x2 in 12 ins in the ground for $\frac{1}{4}$ sec cor, marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Bits impracticable.
48.50	Trail and wagon road drs S.E.
63.65	wash drs S.E.
73.32	Trail drs N.E. and S.W.
- 83.65	The cor of secs 7, 8, 12 and 18. Land mountainous. Soil clay and gravel. Red and white water. No timber. Mountainous land on 83.65 - ch.

No 6' tr bet - secs 7 and 8.
ascend.

4.05	T of low spur slopes on descent.
12.65	Trail drs E and S.W.
14.05	Trail " E and W. ascend.
23.05	T of rounded clay knoll.
25.00	Gulch drs East.
29.50	Point - about 2.00 chs east of rounded rock knoll. Descend over rolling ground.

Subdivisions of 922 S R16 E.

40.00	Set a sand stone 14x8x4, ins. 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ cor to face; dry pit. 18x18x12 ins N and S of stone 3 ft dist; and raised a mound of earth $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft high west of cor.
43.00	Top of rolling bench bes E and w.
53.55	Gully drs east.
60.30	Top of bench N side. descend.
63.00	Foot of slope.
80.00	Point of low spur slopes East. Set a sand stone 15x8x6 ins 10 ins in the ground for cor of secs 5, 6, 7 and 8; marked with 5 notches on S and E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable. Land mountainous. Soil stony and sandy. Bad and dry soil ratio. No timber. Mountainous land on 80.00 chs.

	N $89^{\circ}54' E$ on a random line bet - secs 5 and 8.
40.00	Set tiny $\frac{1}{4}$ sec cor.
46.55	Right - bank of Green River. Set tiny remainder cor. To determine drift across, we set a flag on line on left bank of river; then measured a base line $80^{\circ}6'E$ 10.00 chs to a point, whence the flag was $N 43^{\circ}21'E$. From the flag the S end of the base has $S 43^{\circ}21' W$; therefore the drift is long $43^{\circ}21' \times$ base or $9.47 \frac{1}{2} \times$ $10.00 = 9.47$ which added to $46.55 =$

Subdivision of 2228 R.C.E.

measures.

- 56.02 To left bank of Green River.
Det. being meander cor.
Intersect N and S line 17, lbs
S of cor of secs 4, 5; 8 and 9.
I hence ran a line S 8° 47' E on
a true line bet. secs 5 and 8.
River rolling sand flat;
bank 1.00 mile due N. W.
Enter cottonwoods.
Left bank of Green River.
Leave cottonwoods.
Det. a boulder 16x14x2 ins
11 ins in the ground for
meander cor of fract. secs 5 and
8 with 5 notches on S face,
marked N.C. on west face.
from which;
A cottonwood 10" diam. has
S 58° 30' E 30 lbs dist marked
T 22 S R 16 E S 8 N.C. B.G.
No other tree within limit.
Therefore ran a mound
of stone 2 ft base 1 1/2 ft high.
East. of cor. Pits impracticable.
33.27 Right bank of Green River.
Det. a sand stone. 18x6x5 ins
12 ins in the ground for meander
cor of fract. secs 5 and 8; marked
N.C. on S face, with 5 notches
on N face, and raised a
mound of stone 2 ft base 1 1/2 ft.
high. West of cor. Pits impracticable.
Acre.
- 34.82 Part of placer point slopes S.
Top of bar.
Det. a sand stone 16x8x5 ins
11 ins in the ground for 1/4 sec cor
marked 1/4 on N face and
raised a mound of stone 2 ft.
base 1 1/2 ft. high. N. of cor.

Subdivisions 9223 R. 16 E.

Pits impracticable.

44.82 Gully dries S.

50.00 Placer ridge lies N.W. and S.E.
descend.

7.82 Foot of ridge west side.

7.32 Major road to Gold Planet
lies N.W. and S.E.

60.35 Wash dries S.E.

68.67 Major road to Gold Planet
lies N.W. and S.E.

70.82 Foot of spur slopes east.

- 79.82 Disc cor of secs 5, 6, 7 and 8.
Land mountainous.

Soil sandy. 1st and 2nd rates
Timber Cottonwood along
rivers.

Mountainous land or dense
undergrowth on 79.82 dries.

Oct 28 - 1895. At this cor we
set off $13^{\circ} 18'$'s on the dial and
at 0^h 00m l.m.t. observe
the sun on the meridian;
the resulting lat is $38^{\circ} 55' N.$

West on a random line
bet secs 6 and 7.

Set line $\frac{1}{4}$ sec cor.

Intersect or body of gl. & thks
of cor of secs 1, 6, 7 and 8
which has been heretofore
described.

Hence we run,

$38^{\circ} 57' E$ on a true line bet
secs 6 and 7.

Along foot of N slope.

Wash dries N.E.

33.60 Wash dries N.E. ascend.

Set a boulder $14 \times 6 \times 6$ ins
10 ins in the ground for $\frac{1}{4}$ sec cor
marked $\frac{1}{4}$ on N face and

Subdivisions of 9^o 22' S or 16 E.

raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.

48.43 Gully does N ascend.
Top of ridge lies N. and S. descend
descend to west.

68.43 Wash does N.E. ascend.

70.43 Top of bench lies N and S.
East side of bench descend.

79.43 The cor of secs 5, 6, 7 and 8.
Land mountainous.
Soil stony and sandy.
2nd and 3rd rate.
No timber.

Mountainous land as 80.43 ch.

Oct 28-1898: At 2^h 00 m p.m. I. M. T.
we set off $38^{\circ} 55'$ on the lat-arc
 $13^{\circ} 20' S$ on the decl arc; and
determine a true meridian
with the solar at the cor of secs
5, 6, 7, and 8.

Therefore we run.

$11^{\circ} 0' 6''$ or on a meridian
line bet secs 5 and 6.

40.00 Set time $\frac{1}{4}$ sec cor.

85.40 Intersect N body of T 2.40 ch
 $589^{\circ} 43'E$ cor of secs 5, 6, 31, and
32. heretofore described.

Therefore at this point we
set a sand stone $18 \times 12 \times 5$ ins
12 ins in the ground, for closing
cor of secs 5 and 6, marked C.E.
on S; with 5 grooves on E and
1 groove on faces; and raised
a mound of stone 2 ft base
 $1\frac{1}{2}$ ft high S of cor. Pits im-
practicable. We destroy all marks on
old cor pertaining to secs 5 and 6
Therefore we run.

$80^{\circ} 6'E$ on a true line bet secs 5 and 6.

Subdivisions of T 22 S R 16 E.

	descend.
1.50	wash chs south.
10.00	Leave wash do. descend.
13.00	Top of spur bds S.W. N.E. descend.
28.00	wash chs S.W.
45.40	Set a granite 14x8x4 ins 10 ins in the ground for 1/4 sec cor marked 1/4 on W face and raised a mound of stone 2 ft high 1 1/2 ft high W of cor. Bits unpracticable.
47.00	main road chs S.E.
54.00	wagon road to Gold Plant. bds N.W. and S.E. descend.
60.00	Top of low ridge bds S.E. and N.W. descend.
66.50	Gully chs East.
68.00	Trail bds N.W. and S.E.
70.00	Foot of ridge bds E and W.
71.50	Top of ridge. descend.
80.00	Wash chs East. Ascend.
- 85.40	Top cor of secs 5, 6, 7 and 8. Land mountainous. Soil gravel and sand. Red and 3rd rate. No timber.
	Mountainous land on 85.40 chs.

Oct 28-1898.

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Meanders T 22 S R 16 E.

Meanders of right-bank of lower
river of stream.

We commence at the meander
end of gravel secs 3 and 34 on the
left bank of the D. J., which has been
herebefore described.

At this corner, Oct. 24 - 1895, we
set-off $38^{\circ} 01' N$ on the lat. arc;
 $13^{\circ} 38' S$ on the decl. arc and at
84.00 m. a.m. l.m.t. determine
a true meridian with the
solar.

Hence we run with meanders
in sec 34.

Through scattering cottonwood.

N $34^{\circ} 30' E$ 1.45 hrs.

N $20^{\circ} 30' E$ 17.00 " Leaf trees. Ellis brush.

N $41^{\circ} 30' E$ 8.00 " Still in brush. Bank, 8 ft. high.

N $37^{\circ} 00' E$ 14.00 " Leaf dense green brush.

N $31^{\circ} 00' E$ 9.00 " Bank sand 10 ft. high.

Small island opposite.

N $28^{\circ} 15' E$ 10.00 " Bank gravel 10 ft. high.

N $15^{\circ} 30' E$ 7.00 " Ellis shale rock.

N $10^{\circ} 00' E$ 7.00 " Perpendicular cliff
to left - 25-61 ft. high.

N $6^{\circ} 30' E$ 10.00 " Along steep shale
facing river.

N $13^{\circ} 00' W$ 6.00 " Under ledge 20 ft.
high. To meander
end of gravel secs 27 and 34.

Land rough.

Soil rocky and sandy.

2nd and 3rd rate.

Thicker cottonwood.

Morainic land. Heavily
timbered land or land covered
with dense undergrowth on 85.45 ac.

Hence in sec 27.

Meadows. 9 22 30 16 E.

Meadows of right-bank of Green
river, up stream.

Through dense willow and sagebrush.

N 4° 00' W 18.00 chs Rock ledges about 2.00 chs
to left of line.
At 10.00 chs mouth of
gulch des N.E.

N 14° 30' W 8.00 " Still in thick brush.

N 15° 30' W 8.00 " Thick brush along banks.

N 44° 00' W 4.00 " Cliffs 2.00 chs to left.

N 61° 30' W 5.00 " Thick brush.

N 72° 20' W 4.00 " Point 50 lbs. S of main
bank.

S 82° 00' W 8.00 " Banks, rock 10 ft high.

S 62° 30' W 3.00 " Dense brush.

S 56° 00' W 13.00 " Banks sand 10 ft high.

S 49° 30' W 5.00 " Ledges 2.00 chs to left.

S 32° 30' W 4.00 " Under steep slide rock.

S 34° 00' W 8.00 " Under steep slide rock.

S 45° 30' W 3.00 "

S 52° 30' W 14.00 "

S 68° 21' W 5.22 " Still under slide rock.

To meander end of
first sec 27 and 28.

Land very rough.

Soil rocky and sandy.

2nd and 3rd rate.

Land in brush district subject
to over flow in time of high
water.

No timber.

Dense undergrowth on 5-5.00 chs.

Mountainous land on 5-5.22 "

Hence sec 28.

Under slide rock 50 ft high
slopes North.

S 74° 47' W 5.33 To meander end

Meanders 1-225 09/16 E.

Meanders of right bank of
green river up stream.

of gravel secs 28 and 33.

Land mountainous.

Soil rocky, 4 ft rule.

No timber.

- Mountainous land or 5:33 chs.

Cloudy can not take lat.

There is sec 33.

Along bottom of ledges and
steep side rock sloping toward river.
S 76° 47' W 17.14 chs At 2.00 chs drs

N.W.

N 88° 00' W 3:00.

N 65° 30' W 9.00. Still under ledges and
steep side rock, 50
to 100 ft high.

To meander end of
gravel secs 28 and 33.

Land mountainous.

Soil rocky 4 ft rule.

No timber.

- Mountainous land. 31.14 chs.

There is sec 28.

Through dense willow brush.

N 54° 00' W 7.00 chs. Ledges 50 ft high
1.00 ch to left.

N 36° 00' W 6.00. At 1.00 ch mouth of
brush drs N.E.

N 14° 00' W 18.00. Through thick willow
Ledge 50 ft high 2.00
chs left of end of
course.

N 11° 30' E 31.00. At 5.00 chs section
written on ledge to
left. At 1.00 chs.

Meanders T 22 S of 16 E.

Meanders of right bank of
green river up stream.

Mouth of washes E.
12.00 mouth of gully
ds East. Leave brush
at end of course.
N 4° 00' E 7.60 chs Ledges to left at end
of course.

N 22° 30' W 5.70 " At 4.70 chs small
cave left of line.

N 4° 30' W 4.00 " End of course opposite
S end of island.

N 14° 20' W 7.15 " To foot of slide rock
100 ft high. To meander
con of fuel sec 21 and
28.

Land rough.

Soil rocky and sandy.

2nd and 4th rate.

No timber.

Dense undergrowth on 62.00 chs
mountainous land on 24.45 "

Oct 28 - 1888.

Thence in sec 21.

Over loose rocks. Bank 15 ft high.
N 5° 30' W 3.00 chs. Enter brush at end
of course

N 17° 00' E 9.00 " Beginning of course
opposite N end of island
At 6.00 chs leave brush.

N 36° 00' E 5.00 "

N 13 30 E 10.00 " Enter brush at end of
course.

N 11 30 E 11.00 " At 7.00 chs mouth of
wash ds east?

N 6° 00' E 8.00 "

N 16 30 E 8.00 " Still in brush.

At 2.00 chs gully ds E

Meanders 9228 or 16 E.

Meanders of the right bank of
Green river up stream.

N $14^{\circ} 30' E$ 14.00

N $01^{\circ} 00' E$ 6.00

N $12^{\circ} 10' W$ 7.35 Still in brush.

To meander on of
fractures 16 and 21.

Land rolling.

Soil stony and sandy.

2nd and 3rd rate.

Timber scattering cottonwood.

Dense undergrowth on 60.35 chs.

Thence in sec 16.

N $19^{\circ} 00' W$ 10.00 At through dense brush.

Bluffs about 10.00 chs to
left. Scattering cottonwoods.

N $47^{\circ} 00' W$ 5.00 " Bank 25-ft high. rocky.

N $36^{\circ} 30' W$ 22.00 " At end of course leave
cottonwood. Opposite
large riffle.

N $11^{\circ} 00' W$ 10.00 " Bank 15-ft high. brush
and slick rock.

N $31^{\circ} 00' W$ 7.00 " At end of course enter
brush.

N $44^{\circ} 30' W$ 10.00 "

N $49^{\circ} 30' W$ 7.00 "

N $51^{\circ} 42' W$ 10.80 Still in brush and scatter-
ing cottonwoods.

To meander on of fract
ures 16 and 17.

Land rolling and rough.

Soil stony and sandy.

2nd and 4th rate.

Timber scattering cottonwoods.

Dense undergrowth on 64.80 chs.

Alt 30-159 ft. At the meander on
of fractures 16 and 17 or set off
 $18^{\circ} 58' S$ on the sheet are, and at

Meanders T 22 S R 16 E.

Meanders of the right bank of
Green river up stream.

At 8.00 m. l.m.t. observe the sun
on the meridian; the resulting
lat is $38^{\circ} 55' N$.

There is sec 17.

Through scattering cottonwoods.
Old ford, not used, opposite point
of beginning.

$N 50^{\circ} 30' W$ 13.00 ch. At end of course
enters steep bluffs.

$N 54^{\circ} 00' W$ 7.00 "

$N 68^{\circ} 21' W$ 8.75. Bluffs 75 ft high to left.
To meander cor of
fract sees 8 and 17.

Land rough and rocky.

Soil stony 40% rock.

No timber.

Oct 30-1898: At the meander cor
of fract sees 8 and 17; we set
 $\text{N} 38^{\circ} 55' N$ on the lat arc; $13^{\circ} 55' S$
on the decl arc and at 2.00 m
p.m. l.m.t. determine a true
meridian with the solar.

There is sec 8.

Under steep rock ledge.

$N 52^{\circ} 30' W$ 1.00 ch. Point of bluff.

$N 73^{\circ} 00' W$ 9.00. At 8.00 chs leave bluff
mouth of marsh chs E.
Enter dense brush
at end of course.

$N 36^{\circ} 30' W$ 3.00 "

$N 11^{\circ} 45' W$ 8.40 "

$N 17^{\circ} 45' E$ 6.20 " Still in thick brush.
enters cottonwood at
end of course.

Meanders 9/22 & 9/16 E.

Meanders of the right bank of
Green river up stream.

$N 30^{\circ} 30' E$ 11.00 chs. End of course under
cable tramway across
rivers to Gold Bluff.
Corral 7 miles to left.

$N 6^{\circ} 30' W$ 14.00 " At - 5.00 chs mouth
of wash chs S.E.

$N 28^{\circ} 30' E$ 6.00 " Bank sand 20 ft high
at end of course
Leave timber until sagebrush.
West end of ford
leading to Gold Bluff
at end of course.
N end of island opp-
osite.

$N 14^{\circ} 00' W$ 4.00 "

$N 21^{\circ} 30' W$ 14.00 "

$N 10^{\circ} 00' E$ 5.00 "

$N 3^{\circ} 30' E$ 5.00 "

$N 3^{\circ} 45' W$ 5.00 " To meander cor
of first sec 5 and 8
land rolling.

Soil sandy 2nd and 3rd rate.

Timber scattering cottonwood.

Dense under growth on 81. = 6.0 chs.

Alt 30-1848.

8 1/2
10 0/0

Thence in sec 5.

Under steep ledges 50 ft high.

$N 24^{\circ} 00' E$ 14.5-0 chs. At 9.00 chs black
shale bluffs 75 ft high to
left.

$N 17^{\circ} 30' E$ 11.00 chs Still under bluff.

$N 35^{\circ} 00' E$ 7.00 " " "

$N 45^{\circ} 30' E$ 10.00 " At - 4.00 chs leave ledge
At - 5.00 chs mouth of wash.
Enter dense sagebrush
brush and willows.

Meanders T 22 S R 16 E.

Meanders of the right bank of
Brown river up stream.

N $75^{\circ} 54' E$ 13.32 chs To meander cor
of gravel sees 4 and 5.

Land rough.

Soil stony and sandy.

2nd and 3rd rate.

No timber.

Dense undergrowth over 18.32 chs.

Oct 31-1898. At the meander cor
of gravel sees 4 and 5; or set off
 $38^{\circ} 56' N$ from the lat arc; $14^{\circ} 4' S$ on the
dulc arc and at 9400^m a.m. l.m.t.
determine a true meridian with
the solar.

Channel in see 4.

Through dense tall grass brush and willows.
S $88^{\circ} 30' E$ 5.00 chs. At 3.00 chs leave
dense brush.

N $65^{\circ} 30' E$ 7.00 " At 2.00 chs mouth of
gully chs 5.

Bluffs 100 ft high 3.00 chs
to left.

N $86^{\circ} 36' E$ 15.00 " Through scattering cotton-
woods.

N $63^{\circ} 36' E$ 6.00 " At end of course leave
trees. Opposite west-
end of island.

S $85^{\circ} 30' E$ 11.00 " End of course opposite
east end of island;

N $71^{\circ} 00' E$ 8.00 " At 2.00 chs a point opposite
west-end of large island
covered with cottonwood.

Channel between island
and mainland 3.00 chs in
enter dense undergrowth
at beginning of course.
At 1.00 ch mouth of wash:

Meanders T 22 S R 16 E.

Meanders of the right bank of
Green river up stream.

0

- N $89^{\circ}30'E$ 5:00 hrs. At 2.00 hrs mouth
of wash obs. S.
S $65^{\circ}00'E$ 6:00. Bluff 3.00 hrs to left.
S $72^{\circ}30'E$ 10:00.. Leave brush at end
of course.
S $80^{\circ}00'E$ 5:00.. Clay bluffs to left.
Mouth of wash at
end of course.
S $61^{\circ}00'E$ 3:00. To a point - opposite
E end of large island.
S $37^{\circ}33'E$ 4:24.. Enter brush at begin-
ning of course.
To meander cor
of gravel sees 3 and 4.

Land rolling.

Soil sand and clay.

2nd and 3rd rate.

Timber scattering cottonwood.

Dense under growth on. 36.24 hrs

Alt 3418.5'. At 0400 m. t. sky

over cast. Impossible to take
but observation.

Thence in sec 3.

Through dense willow brush.

S $47^{\circ}30'E$ 5:00 hrs.

S $56^{\circ}00'E$ 4:00 ..

S $71^{\circ}15'E$ 14:00 .. At 1.00 ch mouth of wash obs S.

S $76^{\circ}00'E$ 5:00 .. Still in brush.

S $80^{\circ}45'E$ 6:00 ..

S $86.00'E$ 4:00 ..

N $88^{\circ}30'E$ 8:00 .. Still in brush.

N $85^{\circ}30'E$ 8:00. Rolling hills 3.00 hrs to left.

Banks sand 15 ft high

N $72^{\circ}30'E$ 6:00. Leave dense brush at
end of course. Scattering
cottonwood.

Meanders T 22 S R 16 E.

Meanders of the right bank of
Green river up stream.

N 65°00'E 6.00 chs.

N 60°00'E 6.00 " Bank sand 15 ft high.

N 39°00'E 4.00 " Large cottonwoods at
end of course.

N 43°E 4.80 " At end of course bluffs
to left - 50 ft high.
Ripple opposite.

N 53°30'W 3.00 " Under rock ledge.

N 11°30'W 4.00 "

N 19°00'E 5.00 " Clay and gravel bluff
at end of course 40 ft high.

N 33°00'E 6.00 "

N 28°00'E 5.00 "

N 22°00'E 3.00 " At end of course large
bluffs. Rolling hills
to left.

N 5°00'W 5.00 "

N 6°00'W 6.00 "

X N 23°50'W 11.27 " To meander cor of
gravel sees 3 and 34 on
the N side of the P.
heretofore described.

Land rolling and rough.

Soil sandy and rocky.

2nd and 4th rate.

Timber scattering cottonwood.

Dense undergrowth over 60.00 chs

est 31 - 1888.

Meanders 5-22-5 Q 16 E.

Meanders of the left bank of Green river down stream.

We commenced at the meander, one of great sees 3 and 3 1/2 on the N. bank of the G. I; before described.

At this corner Nov 1st 1898. we set BB $38^{\circ}56'N$ on the lat. and $14^{\circ}33'S$ on the decl. are and at 9:40 a.m. Sun. t. determine a true meridian with the solar. These we run with meander in see 3. Through dense willows. $510^{\circ}0'E$ 5.07 chs. To meander corner of great sees 2 and 3.

Land level.

Soil sandy. moderate.

No timber.

Dense under growth on 5.07 chs.

Turned on see 2.

Through dense willow brush.

$520^{\circ}15'E$ 4.00 chs

$580^{\circ}45'E$ 4.00 " At 1.45 chs mouth of valley also meet:

$580^{\circ}00'E$ 3.00 "

$5170^{\circ}45'E$ 13.00 " At 11.50 chs north bank of little branch brush.

At end of course, south bank, dense brush at 11.50 chs. At end of course enter scattering Cottonwood.

$5270^{\circ}15'E$ 6.00 " Enter brush at end of course. Dense cottonwoods.

$5220^{\circ}58'E$ 10.77 " At 1.50 chs mouth of branch obs N.W. 10.77 chs to meander corner of great sees 2 and 3.

Meanders 9225916E.

Meanders of the left bank of
green river down stream.

Land rising.

Soil sandy 2nd rate.

Timber scattering cottonwood.

Bush undergrowth on 40.27 chs.

Sky overcast at 0° 00' m. baro 1st 1885.

Thence in sec 3.

Over loose rocky bank. Bluffs
to left.

845° 30' m 13.00 chs.

864° 00' m 10.00.Leave bluffs. Rolling
hills to left.

881° 30' m 23.00. At 15.00 chs gully dis-
morth. Enter dense
willows at end of course.

886° 30' m 5.00. Mouth of next obs N.

881° 00' m 13.00. At 11.00 chs point opposite
old water wheel owned by
J. P. Farmer.

Nor 90' m 10.00. Still in dense brush.

N65° 00' m 9.00. At 7.00 chs south of gully
obs N. Small island opposite.

N51° 42' m 4.16. To meander course
from secs 3 and 4

Land rough.

Soil sandy and rocky.

2nd and 1/12 rate.

No timber.

Bush undergrowth on 41.16 chs.

Thence in sec 4.

Through scattering cottonwoods
and brush.

N78° 30' m 16.00 chs

N76° 45' m 15.00. At 7.00 chs. west obs N. N.

N85° 15' m 16.00. At end of course
less treeline timber.

Manders T 22 S R 16 E.

Manders of the left bank of
Green river down stream.

N 84° 30' or 11.00 chs. Through cottonwoods.

S 83° 30' or 14.00 .. Still in trees.

S 82° 39' or 9.61 .. To meander cor

of gravel beds 4 and 5.

Land rolling.

Soil clay and sand.

Soil and 3rd rate.

Timber cottonwood.

Dense undergrowth on 8.61 chs.

Turn in sec 5.

Through sage brush. Banks 10 ft high

S 83° 42' or 4.39 chs. At 1.79 chs cross fence
bs NE and SW.

Encloses Nat Hartman's
field.

Enter willow brush
at end of course.

S 82° 30' or 7.00 ..

S 61° 00' or 4.00 ..

S 32° 00' or 6.00 ..

S 23° 00' or 9.00 .. At beginning of course
enter cottonwood trees.

Still in brush.

S 14° 00' or 7.00 .. At 2.50 chs wire fence bs E and W.

S 7° 30' or 6.00 .. At 2.00 chs mouth of
marsh chs N.W.

6.00 chs to meander

cor of gravel beds 5 and 8

Land rolling.

Soil sandy. 2nd rate.

Timber cottonwood.

Dense undergrowth on 43.38 chs

Heavily timbered on 22.00 chs.

Manders 9th 2nd & 9th 16E

Manders of the left bank of
Green river doover stream

Thence in sec 8.

Through heavy timber.

S 3° 23' E. 2.91 chs. Bank, sand 10 ft high.

S 10° 00' E. 16.00 " At end of course leave
heavy timber.

Through scattering timber
S 12° 00' E 15.00 " At 8.00 hrs east end,
of forest.

S 6° 30' W 16.00 " From end of course
log house hrs S 13° 15' E
147 chs dirt
Board cabin hrs S 6° 45' W
225 chs dirt
Classified by A. D. Thompson,
Gold Plant suff.

S 42° 00' W 8.00 " At end of course leave
timber.

S 32° 00' W 4.00 " Gold plant along.

S 23° 00' W 8.70 " At end of course leave
Gold plant workings.
Enter cottonwoods.

S 30° 30' E 4.00 .

S 67° 15' E 26.00 " To meander cor of
fresh seas & sand 17.
Still in cottonwoods.

Land rolling.

soil sand and gravel.

2nd and 3rd rate.

Timber cottonwood.

Heavily timbered on 48. 91 chs.
Nov 1st - 1898.

Thence in sec. 17.

Through timber.

S 50° 00' E. 5.80 chs. At 4.00 hrs leave timber.
At 5.90 " 2nd under

cor of fresh seas 16 and 17

Land rough.

Meanders 2 2 2 8 or 16 E.

Meanders of the left bank of
lower river above stream

soil sandy and rocky.

3rd and 4th rate.

Tinder cottonwood.

Mar 2nd 1848. At the meander
end of gravel secs 16 and 17; we
set off $38^{\circ} 5' 5'' N$ on the left arc;
 $14^{\circ} 5' 2'' S$ on the right arc and at
9.400 m. a.m. l.m.t. determine a true
meridian with the solar.

Distance in sec. 16.

Lower slide rock and ledges.

S $41^{\circ} 30' E$ 1.82 chs

S $36^{\circ} 00' E$ 6.00 "

S $47^{\circ} 30' E$ 12.00 .. still in loose rocks

S $52^{\circ} 30' E$ 5.00 "

S $43^{\circ} 00' E$ 10.00. At end of coarse lower
ledges.

At 2.00 chs mouth of
wash drs 5.12.

S $44^{\circ} 00' E$ 6.00 " At end of coarse
lower slide rock.

Enter scattering cotton-
woods.

S $24^{\circ} 30' E$ 9.00 .. Bank sandy.
Enter brush.

S $31^{\circ} 30' E$ 11.00 .. Riffle opposite
end of coarse.

S $23^{\circ} 30' E$ 8.00 .. Lower cottonwoods
at end of coarse.

S $28^{\circ} 00' E$ 7.00 .. Dense brush.

S $30^{\circ} 30' E$ 9.00 .. At beginning of
coarse enter scatter-
ing cottonwood.

S $38^{\circ} 30' E$ 5.00 "

S $20^{\circ} 00' E$ 5.00 .. To meander end of
gravel secs 16 and 17

Meanders 9228916 E.

Meanders of the left bank of
Green river down stream.

Land rough.

Soil rocky and sandy.

3rd and 4th rate.

Timber cottonwood.

Dense undergrowth on 54.00 chs.

Nov 2-1888.- At the meander
end of gravel secs 16 and 21;
we set off 14° 58' on the decl
are, and at 0° 00' in longt.
observe the sun on the
meridian; the resulting
lat is 38° 54' N.

Dense in all 21.

Through brush.

S 7° 00' E 10.80 chs. At 3.00 chs leave brush
enter broken ledges.

S 7° 00' W 7.00 " leave ledge 75-ft-high.

S 14° 30' W 18.00 " " " " "

S 9° 00' W 10.00 " At 1.00 ch mouth of wash
downstream. Leave ledge
enter willow and sagebrush
brush.

North end of island
opposite end of course

S 6° 30' W 12.00 " At 11.00 chs mouth of
gully chs N.W.

S 14° 00' W 5.00 " At end of course
leave dense brush.

S 2° 30' E 17.00 " At 10.00 chs gully chs N.W.
To meander end of
gravel secs 21 and 28.

Land rough.

Soil rocky and sandy.

3rd and 4th rate.

No timber.

Dense under growth on 29.00 chs.

Meanders T 22 S R 16 E.

Meanders of the left bank of
Green river down stream.

Thence in sec 28.

Through brush.

S 8° 28' E 12.30 chs At end of course
leave brush. Cliffs
& left.

S 1° 30' W 8.00 "

S 13° 30' W 7.00 " At 1.00 ch mark obs S.W.

S 5° 30' W 9.00 " Along top of ledge 50 ft.
high. End of course
opposite S end of
island.

S 18° 00' W 9.00 " At beginning of course
leave ledge. 100 ft. high

S 12° 00' W 10.00 " At end of course enter
thick brush. Brush 1.00 ch.

South 6.00 "

S 15° 00' E 7.00 "

S 34° 15' E 5.00 "

S 56° 00' E 5.00 " Still in brush.

S 66° 00' E 6.00 "

N 81° 30' E 6.00 "

N 70° 30' E 6.00 " Still in brush.

N 64° 30' E 8.00 " Leave brush at end of
course.

N 62° 00' E 8.00 " To meander cor of
fract sees 27 and 28.

Land rolling and rough.

soil sandy and rocky

and and 4th rate.

No timber.

Dense undergrowth on 61.30 chs.

Nov 2 - 1898.

61.30
5-1 50

Thence in sec 27.

Bank 15 ft high. Through brush.

N 59° 21' E 12.30 chs. At 3.00 chs point

Meanders 5225 R 16 E.

Meanders of the left bank of
Green river down stream

Opposite west-end of
island. East-end of
island opposite end
of course.

N 52° 00' E 6:00 hrs.

N 44° 00' E 18:00 " Rocky bank.

N 53° 30' E 8:00 " At 7:00 hrs leave
rocks still in brush.

N 73° 00' E 10:00 " At end of course enter
rocks.

N 85° 30' E 7:00 " At 2:00 mouth of wash
hrs south.
Bank still rocky.

S 73° 00' E 9:00 " Leave brush at end of
course. Ledges 100 ft high
to left. At 4:00 gully dry S. 45°.

S 54° 30' E 6:00 " Enter brush at end of
course.

S 24° 00' E 23:00 " Leave brush at end of course.

S 12° 00' E 11:00 " Leave ledges.

S 29° 30' E 8:00 " At 3:00 mouth of Salt
wash 1,000 ft wide shot at.
At 8:00 meander con
of gravel sees 27 and 34.

Land rough.

Soil sandy and rocky.

3rd and 4th rate.

No timber.

Dense undergrowth over 93.30 hrs

Nov 3 - 1898. At the meander
con^{ver} ^{sec} 27 and 34; we set off
 $38^{\circ} 52'$ N on the last arc; $15^{\circ} 1/2'$ S
on the dead arcs and at 10:00 a.m.
determined a true
meridian with the solar.

Meander 9 228 0916 E.

Meanders of the left bank of
Green river lower stream.

Distance in sec. 34.

Upper loose rocky bank.

S 45° 2' N 19.57 chs. Enter brush at
end of course.

S 33° 30' N 14.00 "

S 12° 30' E 6.00 " ledges 3.00 chs to left.

S 31° 30' N 12.00 " At 3.00 chs mouth of
gully chs west.
End of course opposite
N end of island.

S 51° 30' N 5.00 "

S 48° 00' N 10.00 " At end of course leave land.

S 32° 30' N 6.00 " ledges soft high cliff.

S 34° 00' N 11.00 "

S 26° 00' N 8.00 " To meander on
of flat areas and
5° on the S side of the
D. heretofore described

Land very rough.

Soil strong and sandy.

3rd and 4th rate.

No timber.

Dense undergrowth over 48.00 chs.

Nov 2 - 15-8 ft.

General Description.

This township contains some
land suitable for agricultural
purposes along river bottom
provided same was properly
irrigated; which could be
done at a reasonable
expense from the abundant
water supply furnished by
Green River. The only land
suitable for agricultural
purposes is found in the
north western portion of

the township. The soil consists principally of gravel and sand containing considerable alkali. At present there is very little vegetation growing and grazing is poor.

The eastern and southern portion of the township is of a volcanic formation and there are some indications of coal and petroleum.

On the north. bdy of the township in sec 2 some prospecting for petroleum has been done but sufficient developments have not been made inside of the township to warrant reporting any portion as mineral land. There are numerous placer locations along the river but none of them have been developed.

In 1896 a plant was constructed in sec 8 for extracting gold from the gravel gold was not found in paying quantities and the plant has not been running since 1896.

The timber consists of living cottonwood along river bank very little of which is suitable for timber.

Mathias Hartman has a cabin in sec 5 and has made about \$100 worth of improvements. No trace of the claim of 1901 H.B. can be found.

Alfred B Lewis.
David U.S. D.Y.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by
....., United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of

Following the respective capacities in which they acted:

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted
....., United States Deputy Surveyor, in surveying all

those parts or portions of the

....., of the

meridian, of, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor

General for

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

Subscribed and sworn to before me this
day of 189 }
.....

GOOOGO
GOOOGO

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR

United States Deputy Surveyor

I solemnly swear that, in pursuance of a contract received from

United States Surveyor General for

the day of 189, I have well, faithfully, and truly, in
proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for the Manual of Surveying Instructions, and the best
of my knowledge, represented all those parts or portions of

of the

metes and bounds, in the Subdivision of _____, which are represented in
the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly
swear that all the results of said survey have been established and perpetuated in strict accordance
with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General for the Subdivision of _____, and in the specific manner described in the field notes, and
that the foregoing are the original field notes of such survey; and should any fraud be detected, I will be
subject to the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor

Testified to and sworn to before me }
this 22 day of October, 189

8300000
8310000
8300000

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Hilldale City, W. Va. October 21st
The foregoing field notes of the survey of *The Subdivisions & Roadsides of*
Section 22 of T. 11 E. of the First Dist. Davis & Franklin
W. Va.

Alfred G. Abenigo, David A. Blawie
Surveyor General, dated Dec 19, 1897, having
carefully examined, and the necessary corrections and explanations made, the said field notes, and
convinced myself, they deserve, am hereby apprved

Dec 20 1897
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in
has been correctly copied from the original notes on file in this office.

United States Surveyor General

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BOOK A-255

W.J.B.

FIELD NOTES

OF THE ^{RE} SURVEY OF THESouth and East BoundaryofTownship 23 South, Range 16 Eastof the Salt Lake Base ^{line} Meridian,State of Utah

AS SURVEYED BY

Fred B Lewis and David H Blawie, United States Deputy Surveyor,
Under Contract No. 219, dated November 13th, 1897
Survey commenced November 5th, 1898
Survey completed November 11th, 1898

6-161

4-00-00
 2-07-20
 1-0 80
 1-0 57 60 00 00

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock.	Champanian.
Geo. Mortenson.	Champanian.
F. W. Webb.	Morandancer.
Wm. Webb.	Flag-man.
F. W. Webb.	Operator.
C. Anderson.	Morandancer.
C. Anderson.	Observer.
F. A. Gorley.	Flag-man.

To preliminary affidavits of Rock, Mortenson, F. W. Webb.
See book "E".

BOOK A-255

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
20	29	28	27	26	25
21	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chairman,

....., Chairman.

Subscribed and sworn to before me this }
day of , 189 }



I, C. Andersen, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of South and East boundary of T 23 S R 16 E and South and East boundary of T 21 S R 20 E of the Salt Lake Base and Meridian, Utah.

C. Andersen, Moundman.

Moundman.

Subscribed and sworn to before me this 13th }
day of November, 1898 }



I, C. Andersen, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of South and East boundary of T 23 S R 16 E and South and East boundary of T 21 S R 20 E of the Salt Lake Base and Meridian, Utah.

C. Andersen, Axman.

Axman.

Subscribed and sworn to before me this 13th }
day of November, 1898 }



I, F. A. Gorley, do solemnly swear that I will well and truly

perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of South and East boundary of T 23 S R 16 E, and South and East boundary of T 21 S R 20 E of the Salt Lake Base and Meridian, Utah.

F. A. Gorley, Flagman.

Subscribed and sworn to before me this 13th }
day of November, 1898 }



David H. Blossom
U.S. Army Surveyor

BOOK A-255

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
16	17	18	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

WE, A H Rock,

and G Mortenson,

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of ~~the south and east boundary of T 23 S R 16 E and the east and south boundaries of T 21 S R 20 E of the Salt Lake Base and Meridian, etc.~~

A H Rock

, Chainman

G Mortenson

, Chainman

Subscribed and sworn to before me this 10th day of November, 1898 }



David A. Swanson

U.S. Surveyor

WE,

and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this }
day of _____, 189 }



WE,

and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this }
day of _____, 189 }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

, Flagman.

Subscribed and sworn to before me this }
day of _____, 189 }



Resurvey of the South bdy. of T. 23 S. R. 16 E.

Resurvey commenced Nov. 5-1898
and executed with a W. and C.
Gurley light mountain transit
with solar attachment for
a description of which see book. ^{Cl} x

Nov. 5, 1898. - At the corner of
townships 22 and 23 south
ranges 16 and 17 east here-
tofore described we sight over
the true meridian already
established at this point.

Hence we run south on
a blank line on the East
bdy. of sec 1; at 40.48 chs. we fall
23 links west of old $\frac{1}{4}$ sec. cor.
and at 81.02 chs. we fall 46 lks.
west of old cor. of secs. 1, 6, 7, and
13, therefore we continue our
line south and find the
east boundary to be defective
in measurement and
many of the corners have
been obliterated.

At 6 mi. no old cor. of Tps.
23 and 24 south, ranges 16 and
17 east can be found. Set
temporary corner Nov. 5, 1898.

Nov. 6-1898. - From temporary corner
6 mi. south of old cor. of Tps.
22 and 23 south, ranges 16 and
17 east we run west on a
blank line. At 40.00 chs. no old
 $\frac{1}{4}$ sec. cor can be found and at
81.00 chs. no old cor. of secs. 1, 2, 35
and 36 can be found. Therefore
we continue our line west.
At 6 min 7.00 chs. we fall 39 lks.
north of old cor. of Tps.
23 and 24 S. Range 15 and 16

Resurvey of the South bdy. of T. 23 S. R. 16 E.

East, which is a sandstone
8 x 6 x 18 ins. above ground, plainly
marked and witnessed as de-
scribed by the Surveyor General.
Nov. 7, 1898.

Nov. 8, 1898. - As subdivisional
lines have not been closed
upon either side of, or mineral
claims tied to the south boundary
of T 23 S. R. 16 E. we resurvey the
same as follows:

At the cor. of Tps. 23 and 24
S. R.s 15 and 16 E. above described
we sight over the true meridian
established at this point.

Thence we run east bet.
secs. 6 and 31. : ascend

- 8.00 Top of sand bench bds. N and S.
Thence along bench covered with
scattering black sage and sage
brush.
- 40.00 After diligent search no old
 $\frac{1}{4}$ sec. cor. can be found.
- 47.00 Set a cottonwood post 3 ft. long
3 ins. square, 24 inches in the
ground for $\frac{1}{4}$ sec. cor. marked
 $\frac{1}{4}$ sec. 31 on N. face, and 36 on S.
face; dug pits 18 x 18 x 12 ins. and
W. of post 3 ft. dist. and raised
a mound of earth $3\frac{1}{2}$ ft. base
 $1\frac{1}{2}$ ft. high N. of cor.
7. Thence over bench sloping
south.
- 58.00 No old cor. of secs. 5, 6, 31, and
32 can be found.
- 87.00 Set a cottonwood post 3 ft. long
4 ins. square, 24 inches in the
ground for cor. of secs. 5, 6, 31 and
32 marked. —

Resurvey of the South bdg. of T. 23 S. R. 16 E.

T 23 S. S. 32 on N. E.
 R. 16 E. S. 5 on S. C.
 T 24 S. S. 6 on S. W. and
 S 31 on N. W. faces with 5 notches
 on East and 1 notch on west
 edges; dug pits 18x18x12 ins.
 in each sec. 5½ ft. dist. and
 raised a mound of earth 4 ft.
 base 2 ft. high west of cor.
 Land rolling.
 Soil sandy & sterile.
 No timber.
 Rolling land covered with
 scattering undergrowth or brush.

	East bet. secs. 5 and 32. Over rolling bench.
32. 65	Fall 66 lbs. south of old ¼ sec. cor. which is 10 small stones deposited in mound of earth, each marked with a (+). We destroy all traces of old cor.
40. 00	Set a sand stone 12x9x8 ins. 8 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; dug pits 18x18x12 ins. E and W. of stone 3 ft. dist. and raised a mound of earth 3½ ft. base 1½ ft. high N. of cor.
60. 00	Continue over rolling bench. Descend gradually.
70. 00	Gully drs. South.
72. 35	Then back over rolling bench. Fall 93 lbs. south of old cor. of secs. 4, 5, 32, and 33, which is a sandstone 9x5x8 ins., above ground, marked and witness ed as described by the Surveyor General. We destroy all traces of old cor.
76. 50	Descent abruptly.

Survey of the South bdg. of T. 23 S. R. 16 E.

79.90	Wash drs. South Wasterly.
60.00	East side of wash drs. S. Wasterly. Set a red sandstone 12x12x6 ins., 8 ins. in the ground for cor. of sec. 4, 5, 32 and 33; marked with 4 notches on E. and 2 notches on W. edge and raised a mound of stone 2 ft. base 1½ ft. high west of cor. Pits impracticable. Land rolling. Soil sand and stony. 2nd and 3rd. rate. No timber. Rolling land on 60.00 chs. Nov. 8 1898. At this cor we set off 16°-44' S. on the decl. arc and at 6° 10' m. t. observe the sum of the meridian. The re- sulting latitude of the S. bdg. of T 23 S. R. 16 E. is 38° 46' N.

	East lat. sec. 4 and 33. Ascend.
0.40	Ascend abruptly.
3.20	Top of gravel bench drs. N. and S.
7.60	Head of gulch drs. East. Descend.
20.20	Foot of rock bench 200 ft. high. Leave gulch drs. South East.
32.30	Fall 1.00 ch. south of old ¼ sec. cor. which is a sandstone 8x6x1 ins., above ground marked and witnessed as described by the Surveyor General. We destroy all traces of old cor.
34.20	Wash drs. South ascend.
40.00	Set a sandstone 18x10x6 ins 12 ins. in the ground for ¼ sec. cor. marked ¼ on N. face and raised a mound of stone 2 ft. base 1½ ft. high N. of cor.

Resurvey of the south boundary of 9235 916 E.

Pits impracticable

Ascend.

- 59.00 Top of rock ridge lies E and W.
Thence along N slope of ridge
Fall 90 ft to south of old cor of
secs 3, 4, 33 and 34 which is a
sand stone $10 \times 6 \times 16$ ins above
ground weathered and interbedded
as described by the Surveyor
General. No destroy all boulders
of old cor.

descend abruptly.

- 77.45 Top of cliff ≈ 30 ft high, lie
N.W. and S.E.

- 80.00 Set a sand stone $24 \times 12 \times 6$ ins
18 ins in the ground for cor
of secs 3, 4, 33 and 34 weathered
with 3 inches on E and W edges
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high to of cor.

Pits impracticable

Land mountainous.

Soil rocky and gravelly.
3rd and 4th rate.

No timber.

Mountainous land on 8000 ch.

East but - secs 3 and 4,

Ascend.

- 12.0 Top of gravel knoll lies N and
S.

- 10.00 Sharp perpendicular rock
joints about 100 ch south
of line.

- 29.75 Top of second knoll.

Thence over rolling
gravel hills sloping to
south.

- 31.67 Fall 8-5 ft to south of old $\frac{1}{4}$
sec cor which is a sandstone

Resurvey of the South boundary of T 23 S R 16 E.

- 26 x 7 x 6 ins lying on the ground.
We destroy all traces of old cor.
- 40.00 West side of gully dries south.
Set a sand stone 16 x 12 x 4 ins
11 ins in the ground for 1/4 acre
cor marked 1/4 on N. face
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Ribs impracticable.
- 40.10 Gully dries south.
Thence over rough rolling
hills sloping to S; about
3.00 North of San Rafael
river.
- 63.5 North bank of San Rafael river
dries N.E.; dry at time of survey.
- 66.50 North bank of San Rafael dries
S.E. Leave main channel
enter trees.
- 71.59 Fall 74 llas. south of old cor of
secs 2, 3, 34 and 35 which is a
sand stone 10 x 8 x 15 ins above
ground marked and witnessed
as described by the Surveyor
General. We destroy all traces
of old cor. Leave trees.
Eucalypt.
- 80.0 Top of small spur slopes
south.
Set a sand stone 16 x 8 x 4 ins 11
ins in the ground for cor of
secs 2, 3, 34 and 35, marked
with 2 notches on East and 4
on west edges and raised a
mound of stone 2 ft base $1\frac{1}{2}$ ft
high N of cor.
Ribs impracticable.
Land mount anxious.
Soil sandy and stony
Timber Cottonwood.
Montezuma Larch
Nov 8/89

Resurvey of the south half of 9338916 E.

3.59	East bet secs 2 and 35. Descend San Rafael river drs. North easterly. Dry at time of survey. South bank, enter trees. Leave trees enter river channel. drs S.E.
5.00	Leave bottom enter cotton woods.
9.50	Leave trees enter bottom drs N.E..
11.20	Leave bottom ascend.
24.00	Fall 31 lies 3 of old $\frac{1}{4}$ sec cor, which is a sand stone $7 \times 6 \times 18$ ins above ground marked and mit- marked as described by the Surveyor General. We de- stroy all traces of old cor. Ascend.
31.44	Spur slopes N. descend.
32.50	wash drains N Ascend.
37.60	Set a hard sand stone $14 \times 8 \times 4$ ins 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high. N of cor. Rods impracticable. Ascend.
46.00	Top of rolling gravel bench, slopes to north.
71.44	Intersect old cor of secs 1, 2, 35 and 36 which is a sand stone $19 \times 18 \times 12$ ins, lying on the ground marked with 6 notches on east edge, evidently at one time set for a cor common to four townships. We destroy all traces of old cor. Set a sand stone $18 \times 8 \times 6$ ins 12 ins in the ground for cor of secs 1, 2, 35 and 36 marked with 1 notch on E and 5 notches on W edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high. N of cor. Rods impracticable.
- 80.00	

Survey of the south leg of T23 S R16 E.

Land mountainous.

Soil sandy. 3rd rate.

Timber Cottonwood on 17.30 chs
mountainous land on 8.000 chs.

Mar 9, 1898: At 10⁴⁰ m a.m. I am
to set off 38° 46' N on the l
arc 17° 00'.15 on the decl arc and
determine a true meridian
with the solar at the cor of sec
1, 2, 3 5 and 36.

Thereon we run east lat sec
1 and 36. Discrep.

9.80 Wash drs N ascend grade
over rolling hills.

31.50 After diligent search no old
1/4 sec cor can be found.

40.00 Set a sand stone 12x10x5 inns
dris in the ground for 1/4 sec
cor marked 1/4 on N face
and raised a mound of stone
2 ft base 1 1/2 ft high N of cor.
Pits impracticable.

Over rolling sand flat.

65.00 Foot of rock ridge bes sand N.
Ascend abruptly 150 ft.

71.75 Top of ridge. No old cor to 9 ps
23 and 24 S R's 16 and 17 E can
be found in this vicinity.
Discrep.

77.40 Foot of ridge east side.

- 80.00 After diligent search no
old cor of 9 ps 23 and 24 S
R's 16 and 17 E can be found.
Therefore we establish
cor as follows.

Set a sand stone 18x8x4 ins 1/2
ins in the ground for cor of 9 ps 23 and
24 S R's 16 and 17 E. marked;
23 S on N.E.; 17 E on S.E.

Survey of the South bdg. of T. 23 S.R. 16 E.

24 ft. on S. W.

16 ft. on N. W. faces
with 6 notches on each edge,
and raised a mound of
stone 2 ft. base 1 $\frac{1}{2}$ ft. high
S. of cor. Pits impracticable.

Land mountainous.

Soil sandy and rocky.

2nd and 3rd rate.

No timber.

Mountainous land on
so. or ch.

Nov. 9 - 1896. At this cor. we
set off 17° 01' S on the decl. arc and
at 0 $\frac{1}{2}$ mi. N. t. observe the sun
on the meridian. The resulting
lat. of S. bdg. of T. 23 S.R. 16 E. is 38° 46'. $\frac{1}{2}$

Volume

#

R0255

Runway of the East leg of T 23 S R 16 E

- From the cor. of Ths. 23 and 24 S
R. 16 and 17 E., as established
by us, we run N. on the east
bdy. of T 23 S R 16 E. lat sec. 31 and
36.
- Ascend
- 24.57. Tip of rock ridge bns. N C and 80°
Descend.
- 29.00. Foot of ridge N. side
After diligent search no old
trees can be found.
- 40.00. Set a hard sandstone 14x6x5
10 in. in the ground for N. sec cor.
marked 3 on W. face; drop
pits 16x16x12 in. N end of
stone 3 ft. dist. raised a
mound of earth 3 1/2 ft. base
1 1/2 ft. high N. of corner
Point from whence we triang-
ulate across Green River.
- 65.90. To determine dist. across we
set a flag on line on the left
bank of river; then measure
a base west 10.01 chs. to a
point from which the flag
bs. N. 39°18' E.; from the flag
the W. end of the base on
S. 39°18' W. Therefore the dist. is
tan 50°42' x base or $1.22176 \times 10.01 =$
12.22 ch.
- From the triangulation point
chain N. 3. 15 chs.
- 67.05. Right bank of Green River
Set a sandstone 16x4x4 in.
12 inches into the end of
rock, (Brown rocky, impossible
to dig) for meander cor. of
fract. sec. 31 and 36, marked
N. C. on N. face and raised
a mound of stone 3 ft. base
1 ft. high south of cor. Pits
impracticable. 65.90 ch +

Resurvey of the East bdy. of T. 23 S. R. 16 E.

- 78.12 12.22 ch. = 70.12 ch.
Left bank of Green River.
Set a cottonwood post 3 ft. long 4 inches square 24 ins. in the ground for meander cor. of tract nos. 31 and 36 marked:-
m. Cor. S.
T. 23 S. or N.
R. 17 E. S. 31 or E.
R. 16 E. S. 36 or W. faces. dig a pit 36 x 36 x 12 ins. 8 ft. dist. n. of post; and raised a mound of earth 4 ft. base 2 ft. high n. of cor.
79.07 Irrigation ditch be. n. W. and S. E.
79.16 fence south side of orchard be. n. W. and S. E.
80.00 Set a cottonwood post 3 ft. long 4 ins. square 24 ins. in the ground for cor. of sec. 25, 30, 31, and 36 marked, -
T. 23 S. S. 30 or N. E.
R. 17 E. S. 31 or S. E.
R. 16 E. S. 36 or S. W.
S. 25 or n. W. faces with 1 notch on 1 end 5 notches on 2 edges, from which a cottonwood 36" diam. be. S. 49° 13' E. 2.24 chs. dist. marked T. 23 S. R. 17 E. S. 31
B. T. A cottonwood 26" diam. be. S. 35° 45' W. 1.28 chs. dist. marked T. 23 S. R. 16 E. S. 36
B. T.
no other trees within the limits, therefore we dig pits 16 x 16 x 12 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high west of cor.

Land rough.
Soil sandy and rocky.
Timber scattering cottonwood
along river bank.
Mountainous land on 80.00
etc.

Mountainous land on
80.00 etc.

NOTE.— From a point
on the south bank of Green
River, 14.10 chs. south of cor.
to secs. 25-30, 31 and 36 W. D.
Wheeler's house no. 1, br. n.
 $49^{\circ}30' E.$ House no. 2 br. n $51^{\circ} E$
Haystacks and coral br.
 $n. 38^{\circ}30' E.$

North bet. sec. 25 and 30.
After diligent search in the
vicinity of cor. to secs. 25, 30, 31
and 36 no old cor. can be
found.

- 2.84 Fence br. E. and W.
13.84 Enter orchard br. n. W. and S. C.
16.99 Leave orchard.
17.57 Leave cultivated land.
21.59 Irrigation ditch br. n. W. and
S. C. Enter sage brush.
27.79 Fence br. n. W. and S. C.
40.00 Leave sage brush bottom.
Get a sandstone 18 x 10 x 4 in.
13 in. in the ground for tree,
cor. marked $\frac{1}{4}$ on W. face, and
raised a mound of stone 2 ft.
high W. of cor.
Pits impracticable
From this cor. W. D. Wheeler's
house no. 1 br. S. $13^{\circ}28' E$.
House no. 2 br. S. $13^{\circ}40' E$.
Haystack and coral br. S. $9^{\circ}47' E$.

Resurvey of the East Ldy. of T. 23 S. R. 16 E.

41.59

40.00

38.61

31.59

after diligent search no cor.
cor. can be found.
Enter rock breaks.
Set a sandstone 14x8x6 in.
10 ins. in the ground for cor.
of secs. 19, 24, 25 and 30, marked
with 2 notches on south and 4
notches on north edge, and
raised a mound of stone
2 ft. base 1 $\frac{1}{2}$ ft. high west of
cor. Pits impracticable.
Land rolling and rough.
Soil sandy and rocky.
2nd. and 4th rate.
Timber cottonwood along
river bank.
Mountainous land on
st. 41 side.

north bet. secs. 19 and 24.
after diligent search no cor.
cor. of secs. 19, 24, 25, and 30
can be found.

Over round sandstone
knolls.

22.59

Leave sand rock knolls. Enter
sand flat.

40.00

Set a sandstone 14x10x6 in.
12 ins. in the ground for cor.
cor. marked $\frac{1}{4}$ on west face,
and raised a mound of
stone 2 ft. base 1 $\frac{1}{2}$ ft. high
west of cor. Pits impracticable
after diligent search in vicinity
of cor. no old 4 sec.
cor. can be found.

51.59

Leave sand flat. Enter
sand stone breaks.

67.60

Top of ledge face north.
Descend.

Survey of the East bdy. of T. 23 S. R. 16 E.

73.50	Wash drs. west. Ascend.
74.55	Top of small ledge n. side of wash drs. E. and W. Fall 27 lbs. west of old cor. of secs. 13, 18, 19, and 24, which is a (H) marked on sandstone ledge with 3 notches n. and S. of (H), witnessed as described by the Surveyor General. We destroy all traces of old cor.
- 80.00	Top of low rock ridge bds. E. and W. Set a sandstone 14 X 4 X 6 ins. 12 ins. in the ground for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and S. edges and raised a mound of stone 2 ft. base 1 1/2 ft. high west of cor. Pits impracticable. Land mountainous and rough. Soil rocky and sandy. 3rd. and 4th. rate. No timber. Mountainous land on S. or W. slopes.
	Nov. 10, 1898.

3.00	worth lot. secs. 13 and 18. Descend.
5.27	Small gully drs. W. Ascend. Top of rock ridge bds. E. and W. Descend.
9.27	Bulch drs. S. W. Ascend. Ridge bds. E. and W. Descend.
22.20	Center of ravine drs. west.
32.30	Fall 6 1/2 lbs. west of old tree cor. which is a sandstone 18 X 12 X 3 ins. lying on the
38.37	

Survey of the East bdy. of T. 23 S. R. 16 E.

	ground with mark nearly effaced. We destroy all traces of old cor.
40.00	Top of low rock ridge. bear N. E. and S. W.
	Set a sandstone 18x12x6 in. 12 in. in the ground for cor. marked $\frac{1}{4}$ on N. face, and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
47.37	center of red ravine due westerly.
52.40	Wash due. west.
65.37	Wash due. westerly. ascend.
78.90	Wash due. south westerly. no old cor. of secas. 7, 12, 13, and 14 can be found.
80.00	Set a limestone 18x8x6 in. 12 in. in the ground for cor. of secas. 7, 12, 13, and 14, marked with 2 notches on N. and 4 notches on S. edge, and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high west of cor. Pits impracticable.
	Land mountainous. Soil rocky. 4 th rate.
	No timber.
	Mountainous land on 80.00 cha.

Nov. 11, 1898 - at 9th a.m.
L. M. T. we set off 38° 50' N.
on the lat. sec.; 17° 32' S. on
the decl. sec. and deter-
mined a true meridian.

- of the East bdy. of T. 23 S. R. 16 E.

with the solar at the cor.
of secs. 7, 13, 13 and 14.

Then we run, —
north bet. secs. 7 and 12.

Ascend.

9.37 Foot grad volcanic bluff
300 ft. high bet. E. and W.
Ascend abruptly.

Top of bluff.

Descend gradually over
rolling rock bench!

38.98 Fall 80 lbs. W. of old 4 sec.
cor. which is a sandstone
8x6x10 in., above ground,
marked, and witnessed
as described by the Surveyor
General. We destroy all
traces of old cor.

40.00 Set a sandstone 18x6x6 in.
12 in. in the ground for
4 sec. cor. marked $\frac{1}{2}$ on W.
face, and raised a
of stone 2 ft. base $1\frac{1}{2}$ ft high

W. of cor. Bits impracticable
Rock bluff bet. E. and W.
Descend.

61.77 Wash drs. N. W.

63.87 Some wash drs. N. C.

68.90 Some wash drs. N. W.

71.40 Same wash drs. N.C.

75.40 Bend in same wash drs N.E.

79.37 Fall 46 lbs. W. of old cor. of
secs. 1, 6, 7, and 13 which is
a limestone 14x2x10 inches,
above ground, marked and
witnessed as described
by the Surveyor General.
We destroy all traces of old
cor.

80.60 Set a sandstone 20x12x3
in. 15 in. in the ground

Resurvey of the East Idg. of T. 23 S. R. 16 E.

for cor. of secs. 16, 7, and 12,
marked with 5 notches
on S. and 1 notch on N. edges
and raised a mound of
stone 2 ft. base 1 1/2 ft. high
west of corner. Bits impracticable.
Land mountainous.
Soil rocky and sandy.
No timber.
Mountainous land on
so. or ch.

- 12.37 north between secs. 1 and 6.
Descent gradually.
mine wash drs. N. W.
30.80 Wash drs. N. W.
39.91 Fall 23 lbs. W. of old cor.
which is a limestone 10x5x2
in., above ground, mark-
ed and witnessed as
described by the Surveyor
General. We destroy all
trace of old cor. J
- 40.00 Set a sandstone 12x10x3—
in. fine in the ground
for 1/4 sec. cor., marked 1/4
on W. face, and raised
a mound of stone 2 ft. base
1 1/2 ft. high W. of corner.
Wash drs. N. W.
- 50.39 Wash drs. N. W.
- 64.40 Wash drs. N. W.
- 70.09 Small rock point face W.
Descent.
- 76.38 Wash drs. N. W. descent.
I intersect the cor. of Tps. 22
and 23 S. R. 16 and 17 C
herefore described.
- Land mountainous.
Soil sandy and rocky.
3rd and 4th rate.

of the C. & G. of T. 23 S. R. 16 E.

no timber.

mountainous land on
S. 4.39 chs.

Nov. 11, 1898 - At this corner
set of $17^{\circ}35' S.$ on the decl. sec
and at 0⁰ 00⁰ L. m. t. observe
the sun on the meridian,
the resulting lat. of the m.
Lat. of T 23 S. R. 16 E is
 $38^{\circ}51' N.$

Nov 11-1898.

Latitudes Departures & closing errors

Line designated.	True Bearing	Dist chs	Latitudes Departures			
			Closing and Errors			
			N chs	S chs	E chs	W chs
S Bdy T 23 S R 16 E	East	487.00			487.00	
E Bdy T 23 S R 16 E	North	480.39	480.39			
N Bdy T 23 S R 16 E	West	485.25				485.25
W Bdy T 23 S R 16 E (Green River Meridian)	$50^{\circ}11' W$	481.08		481.08		1.54 .58
Convergency.			480.39	481.08	487.00	487.37
			480.39		487.00	487.00
Error in Lat					0.69.	0.37 Error in

General Description

For general description see subdivisions of T 23 S R 16 E.

Alfred B Lewis
David H Blossom
U.S. Dep Surveyors.

No officer authorized to ad-
minister oaths other than
myself being available with-
out great inconvenience
delay and expense I ad-
minister the required pre-
liminary and final oaths.

David H Blossom
U.S. Dep Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of South and East
boundary of T 22 S R 16 E, ^{re} the retracement of N half of
T 22 S R 16 E and resurvey of S half and E part half
of T 23 S R 16 E ^{of the} Salt Lake Base and Meridian
towing the respective capacities in which they acted: ^{Utah.}

F. W. Webb, Chainman.
F. W. Webb, Chainman.
F. W. Webb, Moundman.
F. W. Webb, Moundman.
F. W. Webb, Axman.
William L Webb, Axman.
William L Webb, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, ^{re} in surveying all
those parts or portions of the South and East boundary of T 22 S
R 16 E, the retracement of N half of T 22 S
R 16 E and resurvey of south and east
boundary of T 23 S R 16 E ^{of the} Salt
Lake Base and meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah.

F. W. Webb, Chainman.
F. W. Webb, Chainman.
F. W. Webb, Moundman.
F. W. Webb, Moundman.
F. W. Webb, Axman.
F. W. Webb, Axman.
William L Webb, Flagman.

Subscribed and sworn to before me this 13th
day of November, 1898 }



David H Blossom,
U.S. Deputy Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, October 31st, 1897
The foregoing field notes of the survey of ~~the South of East Boundaries~~
~~of Township 23 South Range 16 East of the Salt Lake Base~~
~~Meridian, Utah~~

executed by *Alfred B. Lewis & David A. Blossom*
under his contract No. *219*, dated *October 12th, 1897*, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob W. Blaine
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-255

X.3.13.

FIELD NOTES

OF THE SURVEY OF THE

*Subdivisions and Meanders**of**Township 23 South; Range 16 East**of the Salt Lake Base ^{and} Meridian,**State of Utah**AS SURVEYED BY**J. L. Lewis and David H. Brown, United States Deputy Surveyors**This Contract No. 319, dated Nov 12th, 1897**Survey commenced November 11th, 1898**Survey completed November 27th, 1898*

6-161

*D. L. Lewis 47-14-67
" 13-24-42 " 1/2**W. C. Brown (L. P.) 10-61-46*

NAME AND DUTIES OF ASSISTANTS.

A. H. Rock	Chairman
Geo. Monterson	Chairman
H. W. Webb	Manager
Wm. Webb	Flagman
H. W. Webb	Operator
C. Anderson	Manager
C. Anderson	Operator
Frank A. Sorley	Flagman

In preliminary affidavits of Geo. Monterson, H. W. Webb saw book "E"

BOOK A-255

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We, _____ and _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

_____, Chainman.

_____, Chainman.

Subscribed and sworn to before me this _____
day of _____, 189_____ }



I, C. Andersen and

We, _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of subdivisions and meanders of T 23 S R 16 E and the subdivisions of T 21 S R 20 E of the Salt Lake Base and Meridian Utah

C. Andersen, Moundman.

_____, Moundman.

Subscribed and sworn to before me this 13th
day of November, 1898 }



I, C. Andersen and

We, _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of subdivisions and meanders of T 23 S R 16 E and subdivisions of T 21 S R 20 E of the Salt Lake Base and Meridian Utah

C. Andersen, Axman.

_____, Axman.

Subscribed and sworn to before me this 13th
day of November, 1898 }



I, F. A. Gorley, do solemnly swear that I will well and truly

perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of subdivisions and meanders of T 23 S R 16 E and subdivisions of T 21 S R 20 E of the salt lake Base and Meridian Utah

F. A. Gorley, Flagman.

Subscribed and sworn to before me this 13th
day of November, 1898 }



David
U.S. Day

Subdivisions of T 23 S. R. 16 E.

Survey commenced Nov. 11-14, 1898
and executed with a W. and L. C.
Gurley light mountain transit
with solar attachment,
for description of which see
book. "E."

X
To examine the adjustments
of the transit, and correct the
level and collimation er-
rors, then, to test the solar
apparatus, by comparing its
indications, resulting from
solar observations made
during a. m. and p. m. hours,
with a true meridian
determined by observations
on Polaris. Proceed as fol-
lowing:-

At the cor. of secs. 35 and 36 on the
S. bdy. of T 23 S. R. 16 E. lat. $38^{\circ}46'N.$
long. $110^{\circ}08'W.$ I set off $38^{\circ}46'N.$
on the lat. arc $17^{\circ}36'S.$ on the decl.
arc, and at $4^{\text{h}} 57^{\text{m}} 1^{\text{s}}$. a.m. t. deter-
mine with the solar a true
meridian and mark a
point thereof, or a stone
firmly set in the ground
5 ch. N. of corner. Nov. 11, 1898.

Nov. 12, 1898. At $3^{\text{h}} 57^{\text{m}} 1^{\text{s}}$ a. m.
Observe Polaris at western
elongation, in accordance
with manual of Instructions
and mark a point in the line
thus determined, on a flag
driven in the ground, 5 ch.
N. of my station.

At 7 foot. a.m. l.m.t. we lay
off the Azimuth of Polaris $103^{\circ}5'$
to the East and mark the true
meridian thus determined
by cutting a small groove in

Subdivisions of T 23 S.R. 16 E.

the stone set Nov. 11 on which
the true meridian falls 0.5 in.
east of the mark determined
by the solar.

At 9³⁰ a.m. I. m. t. we set off
 $38^{\circ}46' N.$ on the lat. arc $17^{\circ}48' S.$ on
the decl. arc, and mark a point
in the true meridian deter-
mined with the solar, by a
cross on the stone already set
5 chs. N. of our station; this
mark falls 0.3 in. east of the
true meridian established
by the Polaris observation.

The solar apparatus, by p.m.
and s. m. observations de-
fines position for true me-
ridian respectively about
 $0'26''$ west and $0'16''$ east
of the meridian established
by the Polaris observations;
Therefore we conclude that
the adjustments of the in-
strument are satisfactory.
The magnetic bearing of the
true meridian at 9³⁰ a.m.
is $N 15^{\circ}12' W.$, the angle thus
determined reduced by
table, page 100, gives the mean
mag. decl. $15^{\circ}10'E'$

We commence at the cor. of
secs. 12, 35, and 36 on the S. bdy.
of township heretofore de-
scribed.

There we run N. 0' 1' St.
bet. secs. 35 and 36.

Descend.

Watch obs. N.W.

Watch obs. northerly.

9.75

16.00

Subdivisions of T33 S.R. 16 E.

- 20.00 Leave wash.
- 25.00 Cross same wash as above do. 111.
- 30.00 Enter bottom covered with sage brush.
- 40.00 South edge of trees, cottonwoods after diligent search no old tree cor. can be found. Set a cottonwood post 3 ft. long, 3 in. square 24 in. in the ground for tree cor. marked 4535 on W. face, S. 36 on E. face from which a cottonwood 8" diam. br. N. 34° 45' E., 1.45 chs. dist. marked 45.36 B.T.
- A cottonwood 10" diam. br. N. 74° 43' W., 2.29 chs. dist. marked 45.35 B.T.
- 41.00 Enter heavy timber and dense undergrowth.
- 49.00 Leave timber.
- 50.00 South bank of main channel San Rafael River.
- 53.75 N. bank San Rafael River do.
- S.E. enter trees. now dry.
- Leave trees. cottonwoods.
- 63.10 Cliff 40 ft. high fr. E. and W. ascend.
- 80.00 S. E. edge of slab rock bench. In old cor. of sec. 25, 26, 35, and 36 can be found.
- Set a sandstone 16x12x4 in. stone in the ground for cor. of sec. 25, 26, 35, and 36, marked with 1 notch on S. and E. edges and raised around of rock 2 ft. base 1 1/2 ft. high west of cor. Bits impractical. Land mountainous.
- Soil sandy and rocky.
- 2" and 4" rate.
- Timber cottonwood.

Subdivisions of T23 S.R. 16 E.

Heavily timbered land on
16. 25 cha.

Mountainous land on
80.00 cha.

Nov. 12, 1898. At this cor. we
set off 1751' on the decl. arc.
and at 0° 00' L. m. t. observe
the sun on the meridian.
The resulting lat. is $38^{\circ} 47' N.$

Cast on a random line lot.
secs. 25 and 36.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

49.91 Right bank of Green River.
Set temp. meander cor.

To determine the dist. across
we proceed as follows. Set a
flag no. 2 on line on left
of river. It being impossible
on account of the roughna-
ture of the ground to
a base of sufficient length
for triangulation, on the
right bank of the river, we
set flag no. 1 on line on right
bank of river. Proceed to flag
no. 2 and measure a base
line north 20.00 cha. to a
point whence flag no. 1 bearing
S. $48^{\circ} 22' W.$ From flag no. 1
the north end of the base line.
N. $48^{\circ} 22' E.$

Therefore the dist. is tan

$$48^{\circ} 22' \times \text{base} = 112.50' \times 20 \text{ cha.} = \\ 22.50 \text{ cha.}$$

$$49.91 + 22.50 = 72.41 \text{ cha.}$$

72.41 Left bank of Green River. I
temp. meander cor.

50.16 Intersect the east bdy. of Tp.
5 cha. south of cor of sec. 25, 30, 31, 36.

Subdivisions of T 23 S. R. 16 E.

heretofore described.

Thence we run, —

S. 89° 38' W in a true line bet.
secs. 25 and 36.

0.95 Fence line bet. N.W. and S.E.

1.10 Irrigation ditch bet. N.W. and
S.E. Enter dense willow brush.

2.95 Left bank of Green River.

Set a hard sandstone 12x8x5
inns. & ins. in the ground for
meander cor. of fract. secs.
25 and 36, marked M.C. on
W. face with 1 notch on S.
face and raised a mound
of stone 2 ft. base 1 $\frac{1}{2}$ ft. high
east of cor.

Pits impracticable.

30.25 Right bank of Green River
at the exact corner point
we mark a (+) on a solid
ledge of rock for meander
cor. of fract. secs. 25 and
36. Marked M. C. east of
(+) with 1 notch south of
(+) and raised a mound
of stone 2 ft. base 1 $\frac{1}{2}$ ft.
high west of cor. Pits im-
practicable.

34.16 Rock gash dis. N. second.

Top of ledge 30 ft. high faces
N.W. Descend

Foot of ledge.

Set a sandstone 16x12x4 inns.
11 inns. in the ground for $\frac{1}{4}$
secs. cor. marked $\frac{1}{4}$ on N. face
and raised a mound of
stone 2 ft. base 1 $\frac{1}{2}$ ft. high
N. of cor. Pits impracticable.

40.46 Southeast bank of San
Rafael river dis. N. E.

N.W. bank of San Rafael

44.41

Subdivisions of T23S.R.16E.

	river lies N.W. River dry at time of Survey. Enter dense brush.
47.77	From this point cabin owned by R.C. Wheeler br. N. 0° E. 61 ft. ch.
57.91	Wagon road br. N.E. and S.W. Ascend gradually.
61.16	Leave trees; over rolling sand bench.
- 80.16	The cor. of secs. 25, 26, 35 and 36. Land mountainous. Soil rocky and sandy. 2nd. and 4th. rate. Timber cottonwood. mountainous land or land covered with dense brush growth on 80.16 ch.

	n 0° 01' W 1st. secs. 25 and 26. Ascend.
10.00	Point about 2 ch. N.W. of rock mass
19.00	Rock reef br. E. and W.
19.25	Trail brs. N. W. and S. C.
27.00	Sand reef br. E. and W.
40.00	Set a sandstone 18x7x6 ins. 12 ins. in the ground for tree. cor., marked $\frac{1}{4}$ on W. face, and raised a mound of stones 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable. $\frac{1}{4}$ sec. cor. is about 4 chs. S.W. of river bluff.
	No old tree cor. can be found.
45.10	Right bank of Green River. Set a sandstone 14x8x4 ins. 10 ins. in the ground for

Subdivisions of T. 23 S. R. 16 E.

meander cor. of fract. sec. 25 and 26 marked m. c. or m. face with 1 notch on c. face. Raised a mound of stone 2 ft. base 1 1/2 ft high S. of cor. Pits impracticable.

No old meander cor. to fract. sec. 25 and 26 can be found. To determine the dist. across river we set a flag no. 2, on line on left bank of river. Since it is impossible to measure base of sufficient length for triangulation on right bank of river we set flag no 1 at meander cor. already set and cross to flag no. 2, then measure a base line N 89° 59' E. 10.00 cha. to a point from whence flag no. 1 lies S. 39° 03' W. From flag no. 1 C. end of base line N 39° 03' E. Therefore the dist. is tan. 50° 56' x base or 1.23196' x 10 = 12.32' cha.

$$12.32' + 45.10' = 57.42' \text{ cha.}$$

Left bank of Green river.
Enter brush.

Set a cottonwood post 3 ft. long 4 in. square with marked stone 24 in. in the ground for meander cor. of fract. sec. 25 and 26 marked . . .

m. c. or s.

T 23 S. or n.

R. 16 C. S. 26 or W. and S. 25 or C. faces, dug a pit 36 x 36 x 12 in. 8 ft. n. of post and raised a mound of earth 4 ft. base, 8 ft. high.

57.42

Subdivisions of T. 23 S. R. 16 E.

- north of cor.
 58.42 Leave brush. Enter field.
 Set a sandstone 10x6x4
 ins. 12 ins. in the ground
 for cor. of secs. 23, 24, 25, and
 26, marked with 2 notches
 on S. and 1 notch on C. edges
 and raised a mound of
 stone 2 ft. base 1 $\frac{1}{2}$ ft. high
 W. of corner
 Land mountainous.
 Soil sandy and rocky.
 No timber.
 Mountainous land or
 land covered with under-
 growth on 58.42 ds.
 No old cor. of secs. 23, 24, 25,
 and 26 can be found.
 Nov. 12, 1898.

- north 89° 58' E. on a random
 line bet. secs. 24 and 25.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.16 Intersect E. bdy. of Twp. 15 like-
 s. of cor. of secs. 19, 24, 25, and
 30, heretofore described.
 Then we were
 S. 89° 52' W. on a true line
 bet. secs. 24 and 25.
 Over a flat rock.
 25.16 Foot of rock knoll bet. N. and
 S. ascend.
 28.02 Top of knoll. Descend.
 33.31 Foot of knoll. Leave sand
 rock. Ascend gravel ridge.
 39.76 Fence br. N. W. and S. C.
 Encloses pasture belonging
 to W. D. Wheeler.
 40.08 Set a sandstone 14x8x6
 ins. 10 ins. in the ground

Subdivisions of T. 23 S. R. 16 E.

	for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ m n. face and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high n. of cor. no old $\frac{1}{4}$ sec. cor. can be found.
45.66	Top of gravel ridge bet. N.W. and S.E. Descend.
66.16	Foot of ridge. On placer bar bet. N. and S.
78.60	Foot of bar.
79.10	Wagon road bet. N. and S.
79.66	Irrigation ditch bet. N. and S.E.
- 80.16	Cor. of secs. 23, 24, 25, and 26. Land mountainous. Soil rocky and sandy. no timber. moist mountainous land on 80.16 cha.

Nov. 13, 1898. At 9⁰⁰ a.m.
L.M.T. we set off 38° 48' N.
on the lat. arc, 10° 04' S. on
the decl. arc and determine
a true meridian with
the solar at the cor. of secs.
23, 24, 25, and 26.

Hence we run
N° 01' W. bet. secs. 23 and 24.

Through sage brush.

Enter cottonwoods.

Old river bed.

Left bank of Green river.
Set a sandstone 14 x 8 x 4 in.
10 ins. in the ground for
meander cor. of first. secs.
23 and 24 marked on C.
on N. face, with 1 notch
on C. face, from which a

1.5.00

22.00

26.40

Subdivisions of T. 23, S. R. 16 C.

- cottonwood 4 ft diam. b.s.
 S. 3° W. 81 lbs. dist. marked
 T. 23 S. R. 16 C. S. 23 m. C. B. T.
 A cottonwood 30" diam b.s.
 S. 77° C. 1.25 chs. dist. marked
 T. 23 S. R. 16 C. S. 24 m. C. B. T.
 $\frac{1}{4}$ sec. cor. falls on island.
 We measure across river
 with steel tape and find
 dist. to be 5.53 chs.
 $5.53 + 26.40 = 31.93$ chs.
- 31.93 South bank of island b.s.
 N. E. and S. W. Enter dense
 brush.
- 40.00 Set a cottonwood post 3 ft.
 long 3 inns. square 24 inns.
 in the ground for $\frac{1}{4}$ sec. cor.
 marked $\frac{1}{4}$ S. 23 m W. face,
 S. 24 on E. face, from which a
 cottonwood 14" diam b.s. S.
 $50^{\circ} 45' E$ 1.06 lbs. dist. marked
 $\frac{1}{4}$ S. 24 B. T. No other trees
 within limits, therefore we
 dig pits 18 x 18 x 12 inns. N. and
 S. of stone 3 ft. dist. and
 raised a mound of earth
 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high & of
 cor.
- 40.15 N. bank of island. Leave
 brush. We measure across
 main channel with steel
 tape and find dist. to be
 5.24 chs. from $\frac{1}{4}$ sec. cor.
 $5.24 + 40.00 = 45.24$ chs.
- 45.24 Right bank of Green River.
 Set a sandstone 14 x 10 x 8 inns.
 10 inns. in the ground for
 meander cor. of fact. sec.
 23 and 24 marked N. C. on
 S. face with 1 notch on C. face
 and raised a mound of

Subdivision of T. 23 S. R. 16 E.

stone 2 ft. base 1/2 ft. high
N. of cor. Pitt impracticable
Ascend over rolling sand
hills.

65.00 Foot of sand ridge b.s. N. W.
and S. E. Ascend.

70.00 Top of ridge. Descend.

76.20 Foot of ridge. North side.
Set a sandstone 16x10x4 ins.
11 ins. in the ground for cor.
of sec. 13 1/4, 23 and 24 marked
with 3 notches on S. and
1 notch on E. edge, and
raised a mound of
stone 2 ft. base 1 1/2 ft. high
W. of cor. Pitt impracticable
Cor. in S. of hollow drs. N. E.
Land mountainous.
Soil gravel and sand.
2nd. and 3rd rate.

Timber cottonwood along
river.

Mountainous land or
land covered with dense
undergrowth on 80.00 chs.
Nov. 13, 1891 - At the cor.
we set off 18' 07" on the decl.
arc and at 0' 00" l. m. to
... we observe the sun
on the meridian, the re-
sulting lat is 38° 49' N.

38.00

N. 89° 52' E. on a random
line bet. sec. 13 and 24,
To a point from whence
we triangulate same river
To determine dist. across
river we set a flag on line
on left bank of river. Then
measure a base line
N. 0° E. 100 chs. to point whence

Subdivisions of T. 23 S. R. 16 E.

the flag bis. S. $44^{\circ} 42' E.$
 From the flag the N. end
 of the base chain. $48^{\circ} 42' W.$
 Therefore the required dist.
 is tang. $48^{\circ} 3' 4'' \times$ base
 $\text{dist } 1.13295 \times 10 = 11.33 \text{ chs.}$
 $11.33 + 38.00 = 49.33 \text{ chs.}$

From triangulation point
 chain N. $89^{\circ} 52' C.$ 1.00 ch.
 $38.00 + 1.00 = 39.00 \text{ chs}$

39.00 Right bank of Green River.
 Set temp. meander cor.
 $\frac{1}{4}$ sec. cor. falls in river
 and cannot be set.

49.33 Left bank of Green river.
 Set temp. meander cor.

80.10 Intercept C. bdg. of Tp. 10 lks.
 S. of cor. of secs. 13, 18, 19, and
 24, heretofore described.
 Thence we run

S. $89^{\circ} 48' W$ on a true line bet.
 secs. 13 and 24.

Over rough rocks n. side of
 wash drs. W.

junction of two washes dr.
 W. and S. W.

29.00 enter brush, River bottom.

Since $\frac{1}{4}$ sec. cor. falls in river,
 at this point we set a sand-
 stone $18 \times 12 \times 3$ in. 12 in. in
 the ground for a witness cor.
 $\frac{1}{4}$ sec. cor. marked W. C. $\frac{1}{4}$
 on n. face from which a
 cottonwood 10 diam. brs. n.
 $58^{\circ} 30' W$ 76 lks. dist. marked
 W. C. $\frac{1}{4}$ S. 13 B. T.

2 cottonwood 8" diam. brs.
 S. $40^{\circ} W$ 66 lks. dist. marked
 W. C. $\frac{1}{4}$ S. 24 B. T.

30.77 Left bank of Green River.
 Set a sandstone $18 \times 12 \times 4$ in.

Subdivision of T. 23 S. R. 16 E.

12 ins. in the ground former
and cor. of fract. secs. 13
and 24 marked 2 m. C. on
W. face with 3 notches on
S. face and raised a
mound of stone 2 ft. base
1 1/2 ft. high E. of cor.
Pits impracticable

41.10 Right bank of Green River.
Stt cottonwood post 3 ft. long
4 ins. square 2 1/2 ins. in
the ground for meander
cor. of fract. secs. 13 and
24 marked
m. C. on E.
T. 23 S. on W.

R. 16 E. S. 24 on S. and
S. 13 on N. faces.
Dug pit 36 x 36 x 12 ins. 8 ft.
W. of post and raised a
mound of earth 4 ft. base
2 ft. high W. of cor.
Ascend over rolling sand
hills.

63.00 Foot of ridge betw. N. and S.
ascend.

67.00 Top of ridge. Descend.

Foot of ridge west side.

The cor. of secs. 13, 14, 23, and
24. Cor in S side of hollow obs N.E.
Land mountainous.
Soil sandy.

2nd. and 3rd. rate.

Timber scattering cotton-
wood along river bank.
mountainous land
on 80. 10 che.

north 0° 01' W. betw. secs. 13 and 14.
Ascend over rocky points.

Subdivisions of T. 23 S. R. 16 E.

20.00	Rock point faces E. Head of hollow br. S.E. Ascend.
24.00	Top of point. Ascend to top of knoll.
35.50	Top of round knoll. Descend.
40.00	Foot of knoll. N. side. Set a sandstone 14x8x4 ins. 10 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; big pits 18x16x12 ins. N. and S. of stone and raised a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor. Over rolling sand hills.
67.00	Top of spur slopes East. Descend.
80.00	Foot of spur on river bottom. Set a sandstone 16x8x6 ins. 11 ins. in the ground for cor. of secs. 11, 12, 13 and 14 marked with 4 notches on S. and 1 notch on C. edges, and raised a mound of stone 2 ft. base 1 ft. high W. of corner. Pits impracticable. Land mountainous. Soil sandy and rocky. 2nd. and 4 th. rate. No timber. Mountainous land on 80. or ch.

North 89° 48' C. on a random
line bet. secs. 12 and 13.

- 6.00 To a point from whence we
triangulate across river.
To station nine dist. across
we set a flag on line on

Subdivisions of T. 23 S. R. 16 E.

e. bank of river, then measure a base line $80^{\circ} 12' C.$ 12.00 chs. to a point whence the flag bearing $n. 47^{\circ} E.$ From the flag the S. end of the base line bears $S. 47^{\circ} W.$ Therefore the required dist. = tang. $47^{\circ} 12' \times$ base or $1.0799 \times 12.00 = 12.96$ chs. $12.96 + 6.00 = 18.96$ chs. From triangulation point chain $n. 89^{\circ} 48' C.$ 45 lks.

6.55	$6.00 + 0.45 = 6.45$ chs. Right bank of Green River. Set temp. meander cor.
18.96	Left bank of Green River. Set temp. meander cor.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
50.41	Intersect C. bdy. of Th. 5 lks. $n.$ of cor. of secs. 7, 12, 13, and 18 previously described. Thence we run —
	$S. 89^{\circ} 50' W.$ on a true line bet. secs. 12 and 13.
2.50	Descend. Wash drs. S. W.
5.50	Wash drs. S. W.
12.05	Wash drs. S. W.
33.05	Wash drs. S. W.
40.20	Top of low ridge bxs. n. and s. Set a sandstone $20 \times 14 \times 2$ inch. 15 inch. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on $n.$ face and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high $n.$ of corner. It is impracticable. Descend.
51.00	Bulch dr. n. W. descend.
61.00	Top river drift bxs. n. and s. Descend abruptly.

Subdivisions of T. 23 S. R. 16 E.

- 61.45 Left bank of Green River.
Set a sandstone 18x10x3 in.
12 in. in ground of stones
(Soil rocky and impossible to
dig.) for meander cor. of
fract. secs. 12 and 13 marked
m. C. on W. face with 4 notches
... on S. face and raised
a mound of stones 2 ft. base
1 1/2 ft. high. C. of corner.
Pits impracticable.
- 73.96 Right bank of Green River.
Set a cottonwood post 3 ft. long
4 in. square with marked
stone 24 in. in the ground
for meander cor. of fract.
secs. 12 and 13 marked ...
m. C. on E.
T. 23 S. on W.
R. 16 C. S. 13 on S. and
S. 12 on N. faces; dug a
pit 36 x 36 x 12 in. 8 ft. west
of post and raised a mound
of earth 4 ft. base 2 ft. high
west of cor.
- 80.41 The cor. of secs. 11, 12, 13 and
14.
Land mountainous.
Soil rocky and sandy,
2nd and 4th. rate.
no timber.
mountainous land on
80.41 ch.

Nov. 13, 1898.

This 13th day of Nov. 1898 I do
charge Wm. Webb, flagman,
and F.W. Webb, mountaineer
and axeman; and employ
F.A. Gorley to perform the

Subdivisions of T. 23, S. R. 16 E.

duties of flagman, and
C. Anderson to perform the
duties of moundman and
axeman. No officer
authorized to administer
other than myself
being available without
great inconvenience
and expense, I administer
preliminary and
final rather

David H. Blossom,
U. S. Dep. Surveyor.

3.10 north $0^{\circ} 01' W.$ bet. sec.
11 and 12.
Right bank of Green River
Set a sandstone $14 \times 8 \times 6$
in. 10 ins. in the ground
for meander cor. of fract.
sec. 11 and 12 marked
m. c. on N. face with 1
notch on E face and
raised a mound of
stone 2 ft. base $1\frac{1}{2}$ ft. high
S. of cor.

Pits impracticable.
It being impossible, on
account of the nature
of the country, to measure
a base of sufficient
length for triangulation
on the right bank of the
river, we set flag no. 2
on line 7.90 ch. right
left bank of river.

Then set flag no. 1 at
meander cor. on right
bank and cross to flag
no. 2. Measure a base.

Subdivisions of T. 23 S. R. 16 E.

line S. $89^{\circ}59'W.$ 13.00 chs.
to a point whence flag no. 1
bs. S. $42^{\circ}40'E.$ From flag
no. 1 the west end of the
base bs. N. $42^{\circ}40'W.$
Therefore the required dist.
is the tang. $47^{\circ}21' \times$ base
or $1.0855^{\circ} \times 13.00 = 14.11$ chs.
 $14.11 + 3.10 = 17.21$ chs.
 $17.21 - 7.90 = 9.31$ chs.

9.31 Left bank of Green River.
Set a limestone 18x12x3
in. 13 inca. in the
ground for meander
cor. of fract. sec. 11 and
12 marked M. C. or S.
face with switch on C. face
and raised a mound
of stone 2 ft. base 1 $\frac{1}{2}$ ft. high
N. of cor.

Pits impracticable.

To a point from whence
we triangulate to top of
perpendicular bluff 300
ft. high bs. E. and W. To
determine dist. we set a
flag on line on top of bluff,
then measure a base
line S. $89^{\circ}59'W.$ 15.00 chs.
to a point whence the flag
bs. N. $43^{\circ}32'E.$ From the
flag the west end of the
base bs. S. $43^{\circ}32'W.$ Therefore
the required dist. is
tang. $46^{\circ}23' \times$ base or
 $1.05194 \times 15.00 = 15.78$ chs.
 $15.78 + 22.21 = 37.99$ chs.

37.99 Top of bluff.

40.00 Set a sandstone 18x16x4 inca.
13 inca. in the ground for 4
sec. cor. marked $\frac{1}{4}$ on W.

Subdivisions of T. 23 S. R. 16 E.

	face and raised a mound of stone 2 ft. base 1 1/2 ft. high W. of corner. Rita impracticable. Over rough rocks.
49.60	Bluff 250 ft. high base. E. and W. Descend abruptly.
56.31	Bottom of canon dia. W. ascend abruptly over shale rock slope S.W.
50.00	Set a sandstone 18x12x6 ins. 12 ins. in the ground for cor. of sec. 1, 2, 11, and 12 marked with 5 notches on S. and 1 notch on C. edges, and raised a mound of stone 2 ft. base 1 1/2 ft., high W. of cor. Rita impracticable. Land mountainous. Soil rocky and sandy, 3rd and 4th rate. No timber. Mountainous land on S. W. ch.

	Nov. 17, 1898 - at 10 th or am. L. m. t. we set off 38° 58' N. on the lat. arc 18° 3' S. on the decl. arc and determine a true meridian with the solar at cor. of sec. 1, 2, 11, and 12. Thence we run - N. 89° 56' E. on a random line bet. sec. 1 and 12. Set temp. tree. cor. Intersect E. bdy. of Tp. 13 like N. of cor. of sec. 1, 6, 7, and 12 herefore described. Thence we run S. 89° 56' W. on a true line
40.00	
50.30	

Subdivisions of T. 23 S. R. 16 E.

- bet. secs. 1 and 12.
Ascend
7.50 Rock point faces north.
Descend.
7.80 Bottom of point. Enter slab rock.
39.00 Foot of bluff bis. N. and S.
Ascend.
40.15 Top of ledge 80 ft. high.
At the exact cor. point we mark
at (A) for $\frac{1}{4}$ sec. cor. with $\frac{1}{4}$ N. of
(A) and raised a mound of
stone 2 ft. base 1 $\frac{1}{2}$ ft. high
N. of cor.
Site impracticable.
50.00 East edge of canon dir. S. W.
63.00 Bottom of canon. Ascend.
71.80 Top W. side of canon.
76.00 Descend abruptly over slide rock.
- 80.30 The cor. of secs. 1, 2, 11 and 12.
Land mountainous.
Soil rocky.
~~4th rate~~
no timber.
Mountainous land on
80.30 chs.

north $0^{\circ}01'W$. on a
line bet. secs. 1 and 2.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.10 Intersect N. bdy. of Twp. 5 -
loc. C. of cor. of secs. 1, 2, 3, 5,
and 36 heretofore described.
Thence we run
 $80^{\circ}03'E$. on a true line
bet. secs. 1 and 2.
Over slab rock.
31.10 Top of red bluff bis. C. and W.
Descend.

Subdivisions of T. 23 S. R. 16 E.

37.00	n. side of canon 20 ft. deep dix. W. Descend.
40.10	Set a sandstone 14x6x6 in. 10 in. in the ground for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face and raised a mound of stone 2 ft. base $\frac{1}{2}$ ft. high W. of cor. This impracticable.
49.80	Bottom of canon. Descend abruptly.
58.10	Top of ledge S. side of canon.
58.15	Over slab rock. Descend over slab rock. The cor. of secs. 1, 2, 11, and 12.
- 80.10	Laid mountainous. Soil rocky. 4th route. In timber. Mountainous land on 80.10 ch.
	Nov. 14, 1898 - At the ^{1355.2} cap of we set off $18^{\circ} 23'$'s on the deck. arc and at $0^{\circ} 1' 0''$ L. M. to observe the sun on the meridian, the resulting lat. of the n. bdy. of T. 23 S. R. 16 E. is $38^{\circ} 51' 2''$.

Nov. 14, 1898.

From the cor. of secs. 2, 3, 34,
and 35 on the S. bdy. of the
Tp. hitherto described
we run

n. $0^{\circ} 01' W.$ lot. secs. 34 and
35. Ascend.

Bulky dix. S. E.

Subdivisions of T. 23 S. R. 16 E.

	Descend over rolling gravel bench sloping to S. E. Trail brs. S. E. and N. W.
10.00	
40.00	Set a granite rock $14 \times 10 \times 4$ ins. 10 ins. in the ground for tree, cor. marked $\frac{3}{4}$ on W. face; dug pits $18 \times 18 \times 12$ ins. N. and S. of stone 3 ft. dist. and raised a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high west of cor. Pits impracticable. Over rolling sand and gravel bench.
47.00	north edge of bench. Descend gradually into swail brs. N. C.
62.00	Bottom of swail. Ascend.
70.00	Top of sand and rock reef brs. N. E. and S. W.
80.00	at the exact cor. point we mark a (+) on solid sand- stone ledge for cor. of road 26, 27, 34 and 35, with 1 notch 8 and 2 notches C. of cross and raised a mound of stones 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Land mountainous, and rolling. Soil gravel and sand. 2nd and 4th rate. No timber. mountainous land on 40.00 cha. Rolling land on 40.00 cha.

Nov. 15, 1898. - At 9^{th} a.m.
l.m.t. we set off $38^{\circ}47'N.$

Subdivisions of T. 23 S. R. 16 E.

- on the lat. arc; 18° 35' 5" on the decl. arc and determine a true meridian with the solar at the cor. of sec. 26, 27, 34, and 35.
 Thence we run -
 East on a random line bet. sec. 26 and 35.
 Set temp. face, cor.
 Intersect n. and s. line
 3 lks. n. of cor. of sec.
 25, 26, 35, and 36.
 Thence we run -
 N. 89° 59' W. on a true line
 bet. sec. 26 and 35,
 Ascend over slate rock.
 East edge lawrock ridge
 bet. n. and s.
 Descend from ridge.
 Foot of ridge.
 Set a sandstone 14x8x4
 in. 12 in. in the ground
 for face, cor. marked
 $\frac{1}{4}$ on n. face and raised
 a round of stone 2 ft.
 base 1 $\frac{1}{2}$ ft. high n. of cor.
 Pits impracticable.
 Ascend.
 Top of rock knoll.
 Descend.
 Enter rolling sand bench.
 Ascend.
 Leave sand hills, enter
 slate rock.
 The cor. of sec. 26, 27, 34
 and 35.
 Land mountainous.
 Soil rocky and sandy.
 3rd and 4th rate.
 no timber.
 Mountainous land on 80.40 ch.

40.00
80.40

20.55

30.50

40.20

41.20

44.80

69.55

80.40

- n. 0° 01' W. lat. sec. 26 and 27
ascend gradually.
Old wagon road on
n. W. end S. E.
Over rolling sand hills.
37.00 South edge of snail dia.
East. Descend.
40.00 Set a sandstone 16 x 6 x 3
ins. 11 ins. in the ground
for 4 sec. cor. marked $\frac{1}{4}$ on
W. face; dug pits 18 x 18 x 12
ins. n. and S. of stone 3
ft. dist. and rained a
mound of earth 3 $\frac{1}{2}$ ft. high
1 $\frac{1}{2}$ ft. high W. of cor.
50.00 center of snail slope E.
Ascend over rolling sand
hills.
54.00 Set a boulder 18 x 6 x 6 ins.
12 ins. in the ground
for cor. of secs. 22, 23, 26 and
27, marked with 2 matches
on S. and E. edges; dug
pits 18 x 18 x 12 ins. in each
sec. 5 $\frac{1}{2}$ ft. dist. and rained
a mound of earth 4 ft. high
2 ft. high W. of cor.
Land rolling.
Soil sandy.
3rd rate.
no timber.
Rolling land on loam or ch.
now. 15, 14, 15, - at this cor.
we set off 1838' on the decl.
sec. and at 0° 05' l. m. t.
observe the sun on
the meridian, the re-
sulting lat. is $38^{\circ} 48' \frac{1}{2}$ N.

Subdivisions of T. 23 S. R. 16 E.

break.

- 13.38 Left bank of Green River
Leave trees.

Set a cottonwood post 3 ft.
long 4 ins., square 24 ins.
in the ground for meander
cor. of fract. sec. 23 and 26,
marked m. c. on W.

T. 23 S. m. C.

R. 16 E. S. 23 on N.

S. 26 on S. face; from
which —

a cottonwood 8" diam.

bz. N. $39^{\circ}W.$ 1.29 ch. dist.
marked T. 23 S. R. 16 E. S. 23
m. c. B. T?

a cottonwood 6" diam.

bz. S. $33^{\circ}30' E.$ 1.86 ch. dist.

marked T. 23 S. R. 16 E. S. 26
m. c. B. T?

- 20.8.0 Right bank of Green
River.

at the exact cor. point we
mark a (+) on solid sand
stone ledge for meander
cor. of fract. sec. 23 and
26, marked m. c. east
of (+) and raised a mound
of stone 2 ft. base 1 $\frac{1}{2}$ ft. high

W. of cor.

Pits impracticable.

Sand.

- 30.4 Leave rocks. Enter sand
flat.

- 40.23 Set a sandstone 12x6x5
ins. 8 ins. in the ground
for tree, cor. marked
 $\frac{1}{4}$ m. N. face; dug pits
18x18x12 ins. E. and W.
of stone and raised a
mound of earth 3 $\frac{1}{2}$ ft. base

Subdivisions of T. 23 S.R. 16 E.

	$1\frac{1}{2}$ ft. high n. of cor. 3 ft. ditch Fence over rolling sand hills.
80.45	The cor. of secs. 22, 23, 24, and 27.
^{67.10} ^{13.35}	Land mountainous. Soil rocky and sandy. Timber cottonwood on E. bank of river. Timbered land on 5.35 cha. Pasture land on 8.00 cha. Mountainous land on 67.10 chs.

	N. $0^{\circ}01'W.$ bet. secs. 22 and 23.
	Ascend over rolling sand hills.
35.00	Top of gravel ridge bet. E. and W. Second.
40.00	On south slope Set a sandstone $18 \times 16 \times 4$ ins. 12 ins. in the ground for tree cor. marked $\frac{1}{4}$ on W. face, and raised a mound of stone aft. base $1\frac{1}{2}$ ft. high N. of cor.
43.00	Pits impractical. Top top of ridge.
56.00	Descend abruptly 15.0 ft. Bottom of ridge.
80.00	Cutter lake bottom and sand flat. Set a sandstone $14 \times 7 \times 5$ ins. 10 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on sand & notches on E. edges; and raised a mound of

Subdivision of T. 26 S. R. 16 E.

stone 2 ft. base $1\frac{1}{2}$ ft.

W. of cor.

Pits impracticable.

Land mountainous
and rolling.

Soil - gravel and sand,
3rd and 4th rate.

No timber.

Mountainous

land on 80.00 class.

S. 89°44' C. on a random
line bet. secs. 14 and
23.

Set temp. tree. cor.

Intersect N. and S. line
16 lbs. S. of cor. up sec.
13, 14, 23, and 24.

Hence we run -

N. 89°52' W. on a true line
bet. secs. 14 and 23.
descend.

Top of low gravel ridge
bet. N. and S. Descend.

Bulley drs. S. C.

descend.

Top of spur bet. N. and
S. slopes south.

descend.

West slope.

Set a sandstone 16 x 12
x 3 ins. 12 ins. in the
ground for $\frac{1}{4}$ sec. cor. mark
ed $\frac{1}{4}$ on N. face and raise
a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high N. of
corner

Pits impracticable.

Bulley drs. S. C. descend

Top of ridge bet. N. and S.

Subdivisions of T. 26 S. R. 16 E.

	Descent.
56.15	Foot of ridge west side. Thence over rolling sand flat.
50.30	The cor. of secs. 14, 15, 22, and 23. Land mountainous and rolling. Soil sandy and gravel. no timber. mountainous land on 50.30 ds.
	Nov. 15, 1894.

	N. 0° 01' W. lat. secs. 14 and 15.
6.00	Over rolling sand flat. South edge of "Dry Lake" bottom br. N. E. land S. W.
12.00	north edge "Dry Lake" bot- tom. Ascend gradually.
18.00	Top of ridge br. C. and W.
	Thence over low rolling sand ridges.
40.00	Set a cottonwood post 3 ft. long 3 in. square with marked stone 2 1/4 in. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 15 on W. face, S. 14 on C. face; dug pits N. and S. of post 3 ft. deep and raised a mound of earth and stone 3 1/2 ft. base 1 1/2 ft. high W. of cor. Thence over rolling sand hills.
60.00	Gravel knoll br. C and W. Descent.

Subdivisions of T. 26 S. R. 16 E.

66.00	Hollow slopes easterly. Ascend.
80.00	Set a sandstone 18 x 6 x 5 ins. 12 ins. in the ground for cor. of sec. 10, 11, 14, and 15, marked with 4 notches on S. and 2 notches on C. edge, and raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable. Land rolling. Soil, ^{sand} 2nd and 3rd rate. no timber. Rolling land on 80.00 cha.

40.00	S. 89° 53' E on a random line bet. sec. 11 and 14. Set temp. 1/4 sec. cor.
80.30	Intersection N. and S. line at the cor. of sec. 11, 12, 13 and 14. Thence w. w., W. 89° 53' W. on a true line bet. sec. 11 and 14. Ascend over broken country.
16.30	Gully dra. N. W.
24.35	Gully dra. N.
26.30	Trail bus. N. W. and S. E.
34.28	Foot of ridge. Ascend.
40.15	Top of ridge bus. N. and S. Set a sandstone 16 x 12 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked $\frac{1}{4}$ on N. face and raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
42.00	Descend
50.00	Foot of ridge W. side.

Subdivisions of T. 26 S. R. 16 E.

60.00	Center of main valley dr. N.
60.30	Ridge gradually. The cor. of sec., 10, 11, 14, and 15. Land mountainous, and rolling. Soil sandy and rocky. 2nd and 4th rate. no timber mountainous. land on 60.30 ch. Nov. 16, 1898, - at this cor. we set off 18° 03' S. on the decl. arc and at 60° 00' L. m. t. observe the sun on the meridi- an; the resulting lat. is 38° 50' N.

21.00	N. 0° 01' W. 1st sec. 10 and 11.
22.00	Ridge over rolling and hills.
23.00	Rock reef bet. N. E. and S. W. descend.
24.00	Foot of reef.
25.00	Trail bet. E. and W.
26.00	Dry valley dr. N. E.
27.00	Dry valley dr. N. E.
28.00	Set a shallow rock 18 x 11 x 3 ins. 12 ins. in the ground for tree cor. marked 4 on W. face and raised a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pitt impracticable
29.00	Trail bet. E. and W.
30.00	Center of "Dry Lake" wash about 1 ch. wide, dr. East.

Subdivision of T. 26 S. R. 16 E.

" ascend.

50.00 Gravel bar bar. C. and W.
ascend.

72.00 Top of ridge bar. C. and W.
- 80.00 Delta shale rock 18x8x6 ins.
in mound of rock (im-
possible to dig on account
of rocks) for cor. to sec. 2, 3,
10, and 11, marked with
5 notches on S. and 2 on
on C. edge, and raised
a mound of stone 2 ft.
base 1 1/2 ft. high W. of cor.
Pits impracticable.

Land mountainous.

Soil sandy and rocky.
2nd and 4th rate
no timber.

mountainous land
on S. or ch.

Nov. 16, 1895. - At 2⁰⁰m. p.m.
L. m. t we set off 38° 50' N.
on the lat. arc 18° 54' S on the
decl. arc and determine
a true meridian with
the solar at the cor. of
secs. 2, 3, 10, and 11.

Thence we run, -

S. 89° 52' E. on a random
line bet. sec. 2 and 11.

27.04 Point from which we tri-
angulate across Green
River. To determine dist.
across we set a flag on
line 70 lbs. C. of left bank
of river, then measure
a base line S. 34° 52' E. 12.00
ch., to a point where the flag
bra. N. 67° 18' E. (It is

Subdivisions of T. 23 S. R. 16 E.

impossible on account of the rough character of the country to obtain longer base on either side of river). From the flag the S. end of the base bearing S. $67^{\circ} 18' W.$ therefore the angles taken in order of measurement are respectively 55° , $102^{\circ} 10'$, $22^{\circ} 30'$ their sum being 180° . We compute dist. across river as follows; -
 $\log. \sin 102^{\circ} 10' = 9.990134$
 $\log. 13.00 = 1.079181$
 11.069315
 $\log. \sin 22^{\circ} 30' = 9.588890$
 $\log. \text{required side} = 1.480425$
Therefore required side = 30.23 chain. From transect point chain S. $89^{\circ} 52' E.$, 3.33 chs. to $27.04 + 3.33 = 30.37$.

- 30.37 Right bank of Green River.
Set temp. meander cor. tree cor. falls in river and cannot be set.
 $27.04 + 30.23 = 57.27$ chs.
 $57.27 - 70$ lbs = 56.57 chs.
56.57 Left bank of Green River.
Set temp. meander cor.
Intersect N. and S. line, 38 lbs. S. of cor. of sec. 13, 11 and 12.
Hence we run S. $89^{\circ} 52' W.$ on a true line bet. sec. 9 and 11.
Descend over slide rock.
Head of gulch due S.
Foot of spur br. N. and S.
Ascend.
- 0.00
12.00

Subdivisions of T. 23 S. R. 16 E.

- 15.00 Top of spur, west side.
Descend abruptly 200 ft.
- 23.00 Foot of steep slope.
Since $\frac{1}{4}$ sec. cor. falls in river, therefore, at this point we set a sandstone 16x16x4 in. 11 in. in the ground for a witness cor. to "cross" cor. marked W. C. $\frac{1}{4}$ m. N. face and raised a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high N. of cor.
Pits impracticable.
- 23.70 Left bank of Green River.
Set a sandstone 20x10x4 in. 15 in. in the ground for meander cor. of fract. sec. 2 and 11 marked m. C. m. W. face with 5 notches on S. face, raised a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high C. of cor.
Pits impracticable.
- 49.90 Right bank of Green River.
Set a sandstone 18x14x3 in. 12 in. in the ground former andler cor. of fract. sec. 2 and 11 marked m. C. or C. face with 5 notches on S. face, and raised a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high W. of cor.
Pits impracticable.
- 83.00 Ascend,
Top of sand ridge b.s. S. and N. W.
- Thence over rolling land.
Head of gulch due N. E.
Thence over broken country sloping north.
- 6535

Subdivision of T. 23 S. R. 10 E.

72.30	Dry valley des. N.
-80.37	The cor. of secos. 2, 3, 10, and 11. Land mountainous. Soil rocky. 3rd and 4th rate. No timber. Mountainous land on 80.27 cha.
7.35	Dist. 0°01' S. on a random line bet. secos. 2 and 3. Right bank of Green River. Set temp. meander cor. From this cor. we measure across river with steel tape and find distance to be 5.89 cha. $5.89 + 7.35 = 13.24$ cha.
13.24	Left bank of Green River. Set temp. meander cor.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
50.24	Intersect n. bdy. of Tl. 30 cha. E. of cor. of secos. 2, 3, 34 and 35 heretofore de- scribed. Hence we run S. 013'E . on a true line bet. secos. 2 and 3. Descend.
2.00	Wash des. S. W. Ascend.
8.00	Point of spur slopes W.
11.00	Descend, Cross same wash as above des. S. E.
27.00	Same wash des. S. W.
29.00	Bend in wash des. S. E.
36.00	Wash des. S. W.
40.24	Set a sandstone 12x6x10 inch, fine, in the ground for tree cor., marked.

Subdivision of T. 23 S. R. 16 E.

- 47 on W. face, and raised
a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high N. of cor.
Pits impracticable.
- 41.20 Cross same wash as stone,
dr. S. E.
descend.
- 43.00 Top of spur slopes E.
Descend over rolling gravel
and sand hills.
- 67.00 Left bank of Green River.
Set a sandstone $9 \times 10 \times 5$
inns. & ins., in the ground
for cor. of fract. secn.
2 and 3, marked 2a. C.
on S. face with 2 notches
on C. face and raised
a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high N. of
cor.
Pits impracticable.
- 72.89 Right bank of Green River.
Set a slatestone $24 \times 8 \times 6$
inns. 18 ins., in the ground
for meander cor. of fract.
secn., 2 and 3, marked
in. C. on N. face with 2
notches on C. face and
raised a mound of
stone 2 ft. base $1\frac{1}{2}$ ft.
high S. of cor.
Pits impracticable.
- 73.40 Top of river bluff, face
N.
descend.
- 80.19 Gullay drs. N. E.
The cor. of secn. 2,
3, 10 and 11,
- 80.24 Land mountain -
one.
Soil gravel and rocky.
3rd and 4th rate.

Subdivisions of T. 23 S. R. 16 E.

No timber.

Mountainous land
on S. 0. 24 des.

Nov. 16, 149 ft.

From cor. of secs. 3, 4,
33, and 34 on the S. ldy.
of the Th. heretofore de-
scribed we run

N. $0^{\circ} 02'$ W. bet. secs. 33
and 34.

Descend gradually over
rolling sand hills.
Center of valley wash
des. C.

19.60

Ascend gradually.
Gully at foot of spur
des. S. W.

32.00

Ascend.

35.00

Top of spur slopes W.
Descend.

39.50

Small gully des. S. W.

40.00

Set a white sandstone
 $16 \times 12 \times 4$ ins., 11 ins. in
the ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ on N. face
and raised a mound
of stone 2 ft. base $1\frac{1}{2}$ ft.
high W. of cor.

63.00

Path impractical.

Foot of ridge.

Ascend.

70.00

Top of ridge bet. E. and W.
Descend.

77.00

Foot of ridge N. side.

At the exact cor. point
we mark a $\frac{1}{4}$ m solid
sandstone ledge for
cor. of secs. 27, 28, 30^{th}
and 34, and marked notch.

80.00

Subdivisions of T. 23 S. R. 16 E.

south and 3 notches C.
of (+). Raised a mound
of stone 2 ft. base $1\frac{1}{2}$ ft.
high N. of cor.
Site impracticable.
Land mountainous.
Soil sandy and rocky,
2nd and 4th rate.
no timber.
Mountainous land
on So. or Ch.

Nov. 17, 1898, - at 9^h 50^m
a. m. h. m. t. we set
off $38^{\circ}47'N.$ on the lat.
arc, $19^{\circ}04'S.$ on the decl. arc
and determine a true
meridian with the
solar at the cor. of sec.,
27, 28, 33 and 34.

Hence we run
Cast on a random line
Lat. sec., 27 and 34
Set temp. $\frac{1}{4}$ sec. cor.
Intersect N. and S. line
6 lks. S. of cor of sec.,
26, 27, 34, and 35.

Hence we run, -
S. $89^{\circ}57'W.$ on a true
line Lat. sec., 27 and 34.
Over rolling sand and
gravel hills.

Set a white sandstone
 $15 \times 10 \times 5$ ins. 10 ins. in
the ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ on N. face
and raised a mound
of stone 2 ft. base $1\frac{1}{2}$ ft.
high N. of cor.
Site impracticable.

Subdivision of T. 23 S. R. 16 E.

54.04	Foot of rock ridge be. n. e. and S. W. Ascend, Top of spur slopes N. E., Thence over slab rock sloping north. The cor. of sec. 27, 28, 33 and 34.
69.00 26.00 54.04	Land mountainous, and rolling. Soil - gravel and rocky, 3rd and 4th rate, no timber. mountainous on 26.00 cha., rolling land on 54.04 cha!
11.00	north $0^{\circ}0'0''$. Let. sec. 27 and 28. Descend over slab rock.
40.00	Foot of rock slope be. E. and W. Thence over rolling sand flat. Set a sandstone $12 \times 8 \times 6$ ins. 8 ins. in the ground for 4 sec. cor. marked $\frac{1}{4}$ on W. face, raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Wagon road be. N. W. and S. E.
69.00	Ascend gradually. Set a red sandstone $15 \times 13 \times 4$ ins. 10 ins. in the ground for cor. of secs. 21, 22, 27, and 28 marked with 2 mortise
80.00	

north $0^{\circ}0'0''$. Let. sec.
27 and 28.

Descend over slab
rock.

Foot of rock slope be.
E. and W.

Thence over rolling
sand flat.

Set a sandstone $12 \times 8 \times 6$
ins. 8 ins. in the
ground for 4 sec. cor.
marked $\frac{1}{4}$ on W. face,
raised a mound of
stone 2 ft. base $1\frac{1}{2}$ ft.
high W. of cor.

Pits impracticable.

Wagon road be. N. W.
and S. E.

Ascend gradually.

Set a red sandstone
 $15 \times 13 \times 4$ ins. 10 ins.
in the ground for cor.
of secs. 21, 22, 27, and 28
marked with 2 mortise

Subdivisions of T. 23 S. R. 16 E.

on S., and 3 matches on E edge, and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable.

Land rolling.

Soil sandy.

3rd rate.

No timber.

Rolling land on S. or che. Nov. 17, 1898. At this cor. we set off $19^{\circ}07' S$ on the decl. arc, and at $0^{\circ}00' E$. M. t. observe the sun on the meridian, the resulting lat. is $38^{\circ}48' N.$

N. $89^{\circ}57' C$, on a random line bet. secs. 22 and 27.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.30 Intersect N. and S. line slks. S. of cor. of secs. 22, 23, 26, and 27.

There we run -

S. $89^{\circ}56' W$. on a tree line bet. secs. 22 and 27. Ascend over rolling sand flat slopes S. C.

40.13 Set a sandstone $18 \times 12 \times 6$ ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face, and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor.

Pits impracticable.

44.10 Fort of open slopes S. ascend.

Subdivisions of T. 23 S. R. 16 E.

47.15	Top of rock spur slopes S. Descend.
50.00	Foot of spur W. side. Thence along foot of ridge, S. side bas., E. and W. The cor. of secs. 21, 22, 27 and 28.
80.30	Land mountainous, and rolling.
97.90 14.10	Soil sandy and rocky, no timber. mountainous land on 36.20 cha.
	Rolling sand hills on 47.15 cha.

	north 0° 02' W. Let sec. 21 and 22.
	ascend.
5.00	Foot of ridge bas. E. and W. Ascend abruptly.
10.00	Reef of rocks face S.
15.80	Top of ridge bas. N. E. and S. W. south side.
30.00	Thence across top to N. side of ridge.
	Descend 150 ft.
37.00	Foot of ridge N. side. Enter rolling sand hills.
40.00	Set a sandstone 15x8x4 inch, 10 inch, in the ground for 4 sec. cor. marked $\frac{1}{4}$ on N. face and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. This impracticable.
50.10	Rock reef faces N., bas., E. and W. Descend.

- 53.00 Foot of reef.
Fence over rolling sand
flat.
- 72.00 S. edge of "Dry Lake" bottom
bet. C. and W.
- 80.00 Set a sandstone 15x12x4
ins., 10 ins. in the
ground for cor. of sec.
15, 16, 21 and 22, marked
23 S. on N. E.
- 16 C. on S. E. faces with
3 notches on S. and E.
edge, and raised a
mound of stone 2 ft.
base 1½ ft. ft. high W.
of cor.
- Pits impractical.
Land mountainous
and rolling.
- Soil rocky and sandy,
and, and 4th rate.
no timber.
- Mountainous land
on 53. or chs.
- Rolling land on 27 chs.

- n. + 9'56'E. on a ran -
dom line bet. sec. 15
and 22.
- Set trap, trees, cor.
Intersection n. and S.
line 9 lbs. n. of cor. of
secs. 14, 15, 22 and 23.
- Fence in run W.
in a tree line bet. sec.
15 and 22.
- Over rolling sand flat
covered with sun
flowers.
- Set a sandstone 12x12x4

Subdivisions of T. 23 S. R. 16 E.

	ins. fine in the ground for 4 sec. cor. marked $\frac{1}{4}$ on N. face, and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor.
50.00	Pits impracticable. South edge "Dry Lake" bottom vs. N.W. and S.E.
54.50	In "Dry Lake" bottom, vs. N.W. and S.E. The cor. of sec. 13, 16, 21, and 22. Land rolling. Soil sandy and clay, 2nd and 3rd rate. No timber. Rolling land on 80.30 cl.

	N. $0^{\circ}0'W.$ lat. sec. 13- and 16.
8.00	Leave "dry lake" bottom. Enter loose rocks.
35.00	Ascend abruptly. Top of rock ridge, south side
37.00	
40.00	Set a sandstone $2\frac{1}{2} \times 2$ $\times 4$ ins. 18 ins. in ground of rocks (im- possible to dig pits on account of rocks) for 4 sec. cor. marked $\frac{1}{4}$ on N. face and raised a mound of stones 2 ft. base $1\frac{1}{2}$ ft. high N. of cor.
65.00	Pits impracticable. Foot of large anvil rock. Ascend abruptly.

Subdivisions of T. 23 S. R. 16 E.

- 72.00 West end of rock, base.
S.E. and N.W.
Descend over slide rock.
Set a sandstone 24 x 10
x 4 ins., 18 ins. in the
ground of rock (im-
possible to dig or ac-
count of rocks) for cor.
of secs. 9, 10, 15 and 16,
marked with 4 notches
on S. and 3 notches on
E. edges, and raised
a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high W. of
cor.
Pits impracticable.
Land mountainous
and rolling.
Soil sandy and rocky,
2nd and 4th rate.
no timber.
Mountainous land
on 45° or chs.
Rolling land on 35° or chs.
Nov. 17, 1896.

- 40.00 East on a random
line bet. secs. 10 and 15,
Set temp. $\frac{1}{4}$ sec. cor.
Intersect N. and S. line
11 lbs. S. of cor. of secs.
10, 11, 14, and 15.
There is no
 $8.89^{\circ} 55' W.$ on a tree line
bet. secs. 10 and 15.
Ascend
Top of small ridge bet. N.
and S. Descend.
Small drs. N.
Ascend over rolling

Subdivisions of T. 23 S. R. 16 E.

33.50	sand bench, slopes N. E. Top of small sand ridge bet. N. W. and S. E. Descend.
40.15	Bottom of small dra. N. Set a sandstone 18x12x4 in., 12 in. in the ground for 4 sec., cor. marked $\frac{1}{4}$ m. N. face and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor. Trail bet. N. E. and S. W. Descend into rock gulch. Bottom of gulch dra. N. Ascend.
46.60	West side top of ridge bet. N. S. Foot of bluff and head of gulch dra. N. Ascend over slide rock.
61.00	
65.00	
66.50	
76.00	
- 80.30	The cor. of secs. 9, 10, 15, and 16. Land mountainous. Soil sandy and rocky, 2nd and 4th rate. No timber. Mountainous land on 80.30 chs.
5.00	N. $0^{\circ}02' W.$ bet. secs. 9 and 10. Descend abruptly, Foot of ridge bet. N. W. and S. E. Descend gradually.
11.00	Wash dra. N. W.
35.75	Descend over rolling sand hills South side of "Dry Lake" wash dra. C.
40.00	Set a sandstone 14x12x3 in., 11 in., in the ground for 4 sec., cor. marked.

$\frac{1}{4}$ on W. face, and raised
a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high W. of
corner.

Pits impracticable.

Leave wash.

43.00
57.00
Foot of bluff 150 ft. high
bs. C. and W.
Ascend abruptly.

77.25 Top of second reef bs. C. and W.
- 80.00 Set a sandstone $18 \times 12 \times 6$
in. 12 in. in the ground
for cor. of sec. 3, 4, 9 and 10
marked with 5 notches
on S. and 3 notches on
C. edges, and raised a
mound of stone 2 ft. base
 $1\frac{1}{2}$ ft. high W. of cor.

Pits impracticable.

Land mountainous.

Soil sandy and rocky,
2nd. and 4th rate.

No timber.

Mountainous land
on so cle.

Nov. 11, 1898, - at 10^{th} m. a.m.
L. M. T. we set off $38^{\circ}50' N.$
on the lat. arc $19^{\circ}30' E.$ in the
decl. arc and determine
a true meridian with
the solar at the cor. of
secs. 3, 4, 9 and 10.

Hence we run -

n. $49^{\circ}5' 5'' E.$ on a random
line bet. secs. 3 and 10

40.00 Set temp. & sec. cor.

51.31 Enter east N. and S. line
9 lbs. S. of cor. of sec.

S. 1 divisions of T. 23 S. R. 16 E.

- 2, 3, 10, and 11.
 Thence we run
 S. $89^{\circ} 51' W.$ on a tree line
 bet. sec. 3 and 10.
 Finally line N. E.
 Ascend over very broken
 and rough rocks.
 Foot of bluff 150 ft. high
 br. N. E. and S. W.
 Set a sandstone $20 \times 10 \times 5$
 ins. 15 ins. in the
 ground for base, cor.
 marked $\frac{1}{4}$ on N. face
 and raised a mound
 of stone 2 ft. base 15 ft.
 high N. of cor.
 Bits impractical.
 Ascend abruptly.
 Top of bluff br. N. E. and
 S. W.
 Thence over rough rock
 bench.
 Flat top rock reef bed.
 N. and S.
 Ground.
 The cor. is 15 ins. 3 4 June 10.
 Land. 15 ins. to iron.
 Soil rocky.
 4th rate.
 No timber.
 Irrigated iron land
 on 80.31 ac.
 Nov. 18, 1898. - At this cor.
 we set off 19 3/5 on the deal.
 we end at 0^o 00' l. m. t.
 observe the sun on the
 meridian the re-
 sulting lat. is $38^{\circ} 50' N.$

Subdivision of T. 23 S. R. 16 E.

		n. 0°02' W. on a random line bet. sec. 3 and 4. Set temp. 3 sec. cor. Interval n. 1 dy. of Th. 6th. C. of cor. of sec. 3, 4, 33, and 34 Lactopis described. There are more 8.0°05' E. on a true line bet. sec. 3 and 4. Descent. Top of rock bench bet. N. W. and S. E.
3.00		There over broken rocks. North side rock gulch. Descent. Center of gulch dia. c.
20.20		Rock bench dia. c. and W. Set a sandstone 10x16 x 8 in., 12 in. in a mass of rocks (im- possible to dig on account of rocks) for 3 sec. cor. marked 4 m. W. face, and raised a mound of stone 2 ft. base 1/2 ft. High W. 16 cor.
38.00		Data impracticable. There over broken rock bench.
40.13		Head of gulch dia. n. W. The cor. of sec. 3, 4, 9, and 10.
		Land mountainous. Soil rocky. 4th. rate. No. timber. Mountainous land on 80.63 ch. Mar. 16 1890.

Subdivisions of T. 23 S. R. 13 E.

From the cor. of secs. 4, 5,
32 and 33 on the S. bdy. of
the Tp. heretofore described
we run -

N. $0^{\circ}03' W.$ bet. secs. 32
and 33.

Over rolling sand and
gravel bank brs. N. & S.
N. W. edge of bench.
Descent.

Bulky dra. east.
Ascend.

Set a sandstone $14 \frac{1}{2}$
 $\times 10$ ins. 10 ins. in the
ground for $\frac{1}{4}$ sec. cor.
marked 3 m. W. face
and raised a mound
of stone 2 ft. base $1 \frac{1}{2}$ ft.
high W. of cor.

Pits impracticable.
N. edge of spur.

Ascended abruptly off
cliff 50 ft. high.

Foot of cliff. Enter
rolling sand hills at
foot of main ridge
br. N. and S.

Set a sandstone $20 \frac{1}{2} \times 2$
ins. 15 ins. in the
ground for cor. of secs.
28, 29, 32 and 33, mark-
ed with 1 notch on S.
and 4 notches on E.
edges, and raised a
mound of stone 2 ft.
base $1 \frac{1}{2}$ ft. high W. of
cor.

Pits impracticable.

Land mountainous.

Soil sandy.

3rd. rate.

Subdivisions of T. 23 S., R. 16 E.,

no timber.

mountainous land,
on 80, or chs.

Nov. 19, 1898 - at 9^h 00^m a.m.
I. m. t. we set off $38^{\circ} 47' 2\text{m}$.
on the lat. arc, $19^{\circ} 33' 5''$ on
the decl. arc, and deter-
mine a true meridian
with the solar at the
cor. of sec. 2, 29, 32, and
33.

Thence we run E. on a
random line bet. sec. 28 and 33.

40.00 Set temp $\frac{1}{4}$ sec. cor.
80.20 Intersect N. and S. line
10 lbs. N. of cor. of sec.
27, 28, 33 and 34.

Thence we run -
N. $89^{\circ} 56'$ W. on a true line
bet. sec. 28 and 33.

Ascend along foot of
rock ridge N. side.

22.50 Top of bench br. N. and
S. E.

36.00 W. edge of bench br. N. E.
and S. W.

Descend.

40.10 On west slope.
Set a cobble rock $12 \times 8 \times 8$
ins. firm. in the
ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ on N. face
and raised a mound
of stone 2 ft. base $1\frac{1}{2}$ ft.
high. N. of cor.

It's impracticable.

Foot of bench.

Thence over rolling sand

45.00

Subdivisions of T. 23 S. R. 16 E.

80.20

bills.

The cor. of sec. 26, 29, 32
and 33.

~~15.00
35.20~~

Land mountainous
and rolling.

Soil sandy.

2nd. and 3rd rate.
no timber.

mountainous land
on 45.00 cha.

Rolling land on 35.20 cha.

17.00

N. 0°03' W. bet. secn. 26 and 29.
Over rolling sand hills
at foot of ridge.

25.00

Foot of bluff 20 ft. high
bet. N. E. and S. W.

Ascend abruptly.

Top of bluff.

40.00

Enter bench bet. N. E. and S. W.
Set a sandstone 14x12x5'
in. 10 in. in the ground
for tree. cor. marked
 $\frac{1}{4}$ on W. face, dug pit
18x18x12 in. in. and
S. of stone 3 ft. dist., and
raised a mound of
earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft.
high W. of cor.

67.00

Three over rolling
bench ascending
north edge of rolling bench.
Descend.

72.00

Second bench bet. N. W. and
S. E.

- 80.00

Set a granite 12x8x6 in.
fin. in the ground for
cor. of secn. 20, 21, 28, and 29,
marked with a notch on
S. and 4 notches on C.

Subdivisions of T. 23 S. R. 16 C.

edges and raised a
mound of stone 2 ft.
base 15 ft. high N. of cor.
Bts impracticable.
Land mountainous.
Soil sandy.

2nd and 3rd. rate.

No timber.

mountainous land
on S. W. cks.

Nov. 19, 1898 - at 0' on.

L. m. t. sky overcast.

Cannot take observa-
tion.

S. 89° 56' C. on a random
line bet. sec. 21 and 28.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.18 Intersect N. and S. line
14 lbs. S. of cor. of sec.
2, 22, 27, and 28.

Thence we run -

S. 89° 58' W. on a true line
bet. sec. 21 and 28.

Very rolling hills at foot
of high ridge bet. E. and W.
South side.

34.68 Wagon road in "Sand
Gap" bet. N. W. and S. E.

5.1 Ascend west side of gap.

38.20 Flat slab rock bet. N.
and S.

40.04 Set a sandstone 14 x 14 x 8
in. 10 in. in the g
for $\frac{1}{4}$ sec. cor. marked
 $\frac{1}{4}$ on N. face, and
raised a mound of
stone 2 ft. base 15 ft. high
N. of cor.

Bts impracticable.

Subdivision of T. 23 S. R. 16 E.

43.00	Foot of sand bench. between N.W. and S.E. Ascend.
49.00	Top of bench between N.W. and S.E.
- 80.18	Thence over rolling hills. The cor. of secs. 20, 21, 28, and 29. Land mountainous Soil sandy and rocky. 3rd and 4th rate. No timber. Mountainous land on So. 18 cha.
17.00	N. 0° 03' W. bet. secs. 20 and 21. Over rolling sand hills. North edge of bench bet. E. and W. Descend.
25.00	Foot of bench N. side. Thence over rolling flat.
40.00	Set a white sandstone 18x6x4 ins. 12. ins. in the ground for cor. marked $\frac{1}{4}$ on W. face; dug pit 18x18x12 ins. N. and S. of stone 3 ft. dist., and raised a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high W. of cor.
58.00	Wagon road bet. N.W. and S.E. in flat in dry lake valley.
60.00	Set a sandstone 18x6x4 ins. 12 ins. in the ground for cor. of secs. 16, 17, 20, and 21, marked with 3 notches on S. and 4 notches on C edges;
46.50	
16.50	

Subdivisions of T. 23 S. R. 16 E.

and raised a mound
of stone 2 ft. base $1\frac{1}{2}$ ft.
high N. of cor.

Pits impracticable.

Land mountainous,
and rolling.

Soil sandy.

3rd. rate.

No timber.

Mountainous land
on 40.00 acs.

Rolling land on 40.00 acs.

N. $59^{\circ}58' E.$ on a random
line bet. secs. 16 & 21.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.20 Intersect N. and S. line
at the cor. of secs. 13, 16, 21,
and 22.

Thence we run

S. $59^{\circ}58' W.$ on a tree line
bet. secs. 16 and 21.

Over "Dry Lake" bottom.

10.20 Leave "Dry Lake" bottom.
Enter low rolling sand
hills.

40.10 Set a cottonwood post
3 ft. long 3 in. square,
with marked stone, 2 $\frac{1}{4}$
in. in the ground for $\frac{1}{4}$
sec. cor. marked $\frac{1}{4}$ S. 16
on N. face, and S. 21 on
S. face; dig pits. $18 \times 18 \times 12$
in. C. and H. of post
3 ft. dist. and raised
a mound of earth $3\frac{1}{2}$ ft.
base $1\frac{1}{2}$ ft. high N. of cor.
Thence over rolling
hills.

80.20 The cor. of secs. 16, 17, 20 and

Subdivisions of T. 23 S. R. 16 E.

21.

Land rolling.

Soil sandy and clay.

2nd and 3rd rate.

No timber.

Rolling land on \$0.20/cha.

7.00	M. 0°03' N. Lat., secs. 16 and 17. Foot of sand bench bsz. N. W. and C.
40.00	Ascend gradually. Set a sandstone 14x8x4 ins., 10 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dug pits 18x18x12 ins. N. and S. of stone 3 ft. dist., and raised a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor. Top of bench bsz. N. W. and S. C.
76.00	N. side of bench. Descend.
86.00	Set a sandstone 18x10x6 ins. 12 ins. in the ground for cor. of secs. 8, 9, 16, and 17 marked with hnotches on S. and C. edges; and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Land mountainous. Soil sandy, 2nd. and 3rd rate, no timber. Mountainous land on \$0.00/cha.

Subdivisions of T. 23 S. R. 16 E.

Nov. 20, 1898. — At this cor. we set off $19^{\circ}47'$ on the decl. arc and at $5^{\circ}10'$ l. m. t., observe the sun on the meridian; the resulting lat. is $38^{\circ}50' N.$

- n. $89^{\circ}58' E.$ on a random line bet. secs. 9 and 16.
 40.01 Set temp. to see. cor.
 80.2 Intersect n. and s. line
 2 lks. S. of cor. of sec. 9,
 10, 15, and 16.
 Hence we run —
 S. $89^{\circ}57' W.$ on a true line
 bet. secs. 9 and 16.
 Ascend over slide rock on
 steep north slope.
 Rock point faces N. W.
 Descend abruptly.
 Foot of steep descent.
 Enter gravel bar.
 37.00 Leank bar. On reef of
 rock.
 40.13 Set a white sandstone
 $18 \times 12 \times 4$ in., 12 in. in
 the ground for $\frac{1}{4}$ sec. cor.
 marked $\frac{1}{4}$ m. n. face
 and raised a mound
 of stone, soft. base $1\frac{1}{2}$ ft.
 high n. of cor.
 Bits impracticable.
 42.00 Top of small ridge bet.
 n. and s. Descend.
 44.1 Top of first ledge bet. n.
 and s.
 Descend 2 ft.
 47.00 Second ledge. Descend
 40 ft.
 50.1 Hollow drs. n.

Subdivisions of T. 23 S. R. 16 E.

71.00	Thence over rolling hills. Foot of ridge N. N. and S. Ascend.
74.00	Top of ridge. Descend.
80.25	The cor. of sec. 8, 9, 16 and 17.
"	Land mountainous. Soil rocky and sandy. 3rd and 4th rate. no timber.
"	Mountainous land on 80.25 cha.

3.00	North 0° 03' W. lot. sees. 8 and 9. Ascend.
10.50	Top of small spur slopes N. Descend.
36.00	Foot of sand spur. center Dry Lake wash.
40.00	Raised in wash bot- tom. Set a sandstone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{2}$ sec. cor. marked 4 m. N. face, and raised a mound of stones 2 ft. base 1 $\frac{1}{2}$ ft. high N. of cor. Its impracticable.
55.00	Leave main wash. Ascend.
66.00	Foot of rock point faces E.
70.10	Top of rock point faces E.
80.00	Thence over rough rocks, descending. Set a sandstone 24 x 12 x 8 ins. 18 ins. in mound of stone (im- possible to dig on account

Subdivisions of T. 23 S. R. 16 E.

of rocks) for cor. of secs
4, 5, 8 and 9, marked
with 5 notches on S. end
4 notches on E. edges, and
raised a mound of
stone 2 ft. base 15 ft.
high N. of cor.

Pits impracticable.

Soil sandy and rocky,
2nd. and 4th rate.

No timber.

Mountainous land
on S. or chs.

Nov. 20, 1898 - At 2^o 00 m
P. M. L. M. T. we set off
 $38^{\circ}50'N.$ on the lat. arc;
 $19^{\circ}50'S$ on the decl. arc and
determine a true meridi-
an with the solar at
the cor. of secs. 4, 5, 8, and
9.

Hence we run,

n. $89^{\circ}57'E$ on a random
line bet. secs. 4 and 9.

Set temp. 4 sec. cor.

Intersect n. and s. line
6 blks. N. of cor. of secs.
3, 4, 9 and 10.

Hence we run

W. on a true line bet.
secs. 4 and 9.

Rock reef bet. n. and s.
Descend.

Head of gulch dis. westerly.
Descend.

Leave gulch dis. n. W.
ledge bet. n. and S. C.

Descend

Set a gray sandstone

Subdivisions of T. 23 S. R. 16 E.

18x12x6 ins. 12 ins. in
the ground for 4 sec. cor.
marked $\frac{1}{4}$ on N. face
and raised as mound
of stone aft. base 15 ft.
high N. of cor.
It's impracticable.
Descend

60.30 Main wash drs. S.
Ascend.

- 80.23 The cor. of secs. 4, 5, 6 and
9.

Land mountainous.
Soil rocky and sandy,
3rd and 4th rate
no timber.

Mountainous land
on 80.23 ch.

40.00 N. $0^{\circ}03'$ W. on a random
line bet. secs. 4 and 5.
Set temp. tree. cor.
Intersect N. Idy. of the. Th.
25 lbs. weight of cor. of
secs. 4, 5, 32, and 33 here-
tofore described.
Hence we run -

80°08' W. on a true line
bet. secs. 4 and 5.

Head of rock gulch drs. C.
Rock gulch drs. C.

Thence over rough slate
rock.

Set a sandstone 18x16x6
ins. 12 ins. in a
mound of rocks (im-
possible to dig on account
of rocks) for tree. cor.
marked $\frac{1}{4}$ on W. face
and raised a mound

- of rock soft. base 15 ft.
high W. of cor.
Pits impractical.
 42.10 Top of ledge br. N. E. and
S. W. Descend.
 50.00 Bottom of hollow dra. C.
Ascend.
 57.83 Top of rock bench slopes
C.
 73.60 South side of bench.
Descend abruptly 150 ft.
 73.80 Foot of bench.
 - 80.85 The cor. of secs. 4, 5, 8 and
9.
Land mountainous.
Soil rocky.
4th rate.
No timber.
mountainous land
on 80, 85 cha.

Nov. 20, 1898.

- From the cor. of secs.
5, 6, 31 and 32 on the S.
bdy. of the Tp. heretofore
described we run
N. $0^{\circ} 03'$ bet. secs. 31 and 32.
Over rolling sand bench.
 40.00 Set a cottonwood post 3 ft.
long 3 ins. square with
marked stone 24 ins.
in the ground fr tree.
cor. marked $\frac{1}{4}$ S. 31 or
W face, S. 32 or E. face;
dig pits $18 \times 18 \times 12$ ins. $\frac{34}{34}$ in
and S. of post. and raised
a mound of earth
 $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high
W. of cor.
 70.00 Foot of low sand ridge

Subdivision of T. 23 S. R. 16 E.

	br. C. and W. Ascend, South edge of second bank. Set a sandstone 18 x 12 x 14 ins. 12 ins. in the ground for cor. posts. 29, 30, 31, and 32, marked with 1 notch on S. and 5 notches on E. edges; dug pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raised a mound of earth 4 ft. base 2 ft. high. W. of cor. Land rolling. Soil sandy. 3rd rate. no timber. Rolling land on so. rocks.
40.00	Cast on a random line bet. sec. 29 and 32. Set temp 1/4 sec. cor.
50.00	Intersect N. and S. line at the cor. of sec. 26, 29, 32 and 33.
	Then we run
	West on a true line bet. secs. 29 and 32
	Ascend up small br. C. Top of small. Enter sand trench.
30.00	Set a sandstone 14 x 10 x 4 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, raised a mound of stones 2 ft. base 1 1/2 ft. high N. of corner. Pits impracticable.
40.00	

Cast on a random
line bet. sec. 29 and 32.
Set temp 1/4 sec. cor.
Intersect N. and S. line
at the cor. of sec. 26, 29,
32 and 33.

Then we run

West on a true line bet.
secs. 29 and 32

Ascend up small br. C.
Top of small. Enter
sand trench.

Set a sandstone 14 x 10 x 4
ins. 10 ins. in the
ground for 1/4 sec. cor.
marked 1/4 on N. face,
raised a mound of
stones 2 ft. base 1 1/2 ft.
high N. of corner.
Pits impracticable.

Ascend.

77.00 Top of low ridge be. n.
and S.W.

- 80.00 The cor. of secas. 2, 9, 30, 31,
and 32.

Land mountainous.

Soil sandy.

3rd rate.

No timber.

Mountainous land
in So. or ch.

Nov. 21, 1898. — At 10th or
a.m. l.m.t. we set
off $38^{\circ}47'N.$ on the lat.
 $sec. 20^{\circ}01'S.$ on the decl.
are and determine
a true meridian with
the solar at the cor. of
secas. 2, 9, 30, 31 and 32.

Thence we run —

Off. on a random line
bet. secas. 30 and 31.

Set temp. $\frac{1}{4}$ sec. cor.

Intersect N. bdy. of the Tp.

4 lbs. N. of cor. of secas.

25, 30, 31, and 36 heretofore
described.

Thence we run —

N. $89^{\circ}58' E.$ on a tree line

bet. secas. 30 and 31.

Over rolling sand hills.

South side of large cir-
cular basin slopes norther-
ly.

Set a cottonwood post 3
ft. long 3 ins. square
with marked stone
24 ins. in the ground
for $\frac{1}{4}$ sec. cor. marked

40. W

86.65

46.65

Subdivisions of T. 2 S. S. R. 16 E.

4 S. 30 on N. face, S. 31 on S. face; dug pits 16x18x12 ins. E and W. of post 3 ft. dist. and raised a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high N. of cor.

Descend.

Ascend.

Top of bench bes. N. W. and S. The cor. of secs. 29, 30, 31, and 32.

Land rolling.

Soil sandy.

3rd rate.

No timber.

Rolling land on 86.65 ac.
Nov. 21, 1898 - at this cor.
we set off 2° 0' 23" on the decl.
arc and at 0° 0' 0" l. m. t.
observe the sun on the
meridian. The result-
ing lat. is 38° 47' 2".

N. 0° 0' 3" W. lat. secs. 29 and 30.

Over rolling sand bench.

Ascend gradually up
S. W. slope.

Top of bench bes. S. W. and
N. E.

Set a sandstone 12x12
x5 ins. fine. in the
ground for tree. cor.
marked $\frac{1}{4}$ m. N. face;
dug pits 16x18x12 ins.
N. and S. of stone 3 ft.
dist. and raised a
mound of earth 3 $\frac{1}{2}$ ft. base
1 $\frac{1}{2}$ ft. high N. of cor.

Descend along S. slope
along N. slope of ridge

30.00

40.00

43.00

57.00

Subdivisions of T. 23 S. R. 16 E.

bz. N. and S.

-80.00

Set a flint rock $14 \times 10 \times 8$ ins. 10 ins. in the ground for cor. of sec. 19, 20, 29 and 30, marked with 2 notches on S. and 5 notches on E. edges, and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor.

Pits impracticable.
Land mountainous.
Soil sandy.

2nd rate.

No timber.

Mountainous land
on 80. or chs.

Cast on a random
line bet. sec. 20 and 29.

40.00

Set temp. $\frac{1}{4}$ sec. cor.

79.93

Intersect N. and S. line
at the cor. of sec. 20, 21, 28,
and 29.

Then we run, —

West on a tree line bet.
secs. 20 and 29.

Along N. slope of high
bench, over low hills.

39.97

Set a granite $14 \times 12 \times 8$
ins. 10 in. in the
ground for $\frac{1}{4}$ sec. cor.
marked $\frac{1}{4}$ m. on N. face;
dry pits $16 \times 16 \times 12$ ins.
E. and W. of stone 3 ft.
dist. and raised a
mound of earth $3\frac{1}{2}$
ft. base $1\frac{1}{2}$ ft. high N. of
cor.

44.00 East edge main bench.

Subdivisions of T. 23 S. R. 16 E.

49.00	Descend over sand hills.
79.93	The cor. of secs. 19, 20, 29 and 30. Land mountainous. Soil sandy, 2nd rate. No timber. Mountainous land on 79.93 ch.
40.00	S. $89^{\circ} 58'$ W. on a random line bet. secs. 19 and 30. Set temp. $\frac{1}{4}$ sec. cor.
86.49	Intersect N. bdy. of Th. 4/5 of the cor. of secs. 19, 24, 25 and 30 before described. Thence we run east on a true line bet. secs. 19 and 30
	Ascend over rolling sand flat.
20.00	Rock spur slopes S. Descend.
23.00	Foot of spur. enter sand hills.
46.49	N. side of large basin. Set a flint rock $1\frac{1}{4} \times 10 \times 8$ ins. 10 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ m. N. face, dry pits $14 \times 14 \times 12$ ins. E. and W. of stone 3 ft. dist. and raised a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor. Foot of long slope to W. Descend.
72.00	On west slope.
86.49	The cor. of secs. 19, 20, 29, and 30.

Land mountainous.
Soil sandy.
2nd and 3rd rate.
No timber.
Mountainous land
on No. 49 chs.

Nov. 2, 1898.

N. 0°03' W. lot. sec. 19
and 20.

Over rolling sand hills
sloping to S. W.

40.00 Set a cottonwood post
3 ft. long 3 in. square
with marked stone 2 1/4
in. in the ground
for 4 sec. col. marked
4 S. 19 on N. face, S. 20 on
E. face; dug pits 18x18x12
ins. N. and S. of post
3 ft. dist., and raised
a mound of earth
3 1/2 ft. base 1 1/2 ft. high
N. of cor.

12.00 In edge of high bench for
E. and W. Descend
abruptly over red shale
rock 2 or 3 ft.

22.00 Top of main bluff.
Still on small bluff
facing N.

50.00 Set a flint rock 18x12x4 in.
12 ins. in the ground
for cor. of sec. 17, 18, 19 and
20 marked with 3 notches
on S. and 5 notches on
E. edge, and raised
a mound of stone
3 ft. base 1 1/2 ft. high
N. of cor.

Subdivisions of T. 23 S. R. 16 E.

Pits impracticable.

Land mountainous.

Soil sandy and rocky.

2nd and 4th rate.

No timber.

Mountainous land
on S. or chs.

Nov. 23, 1898, - at 9 a.m. a.m.
m. l. m. t. we set off
38° 49' N. on the lat. sec
20° 12' S. on the decl. sec
and determine a true
meridian with the solar at the cor. of secs
17, 18, 19 and 20. Thence we run East,
on a random line bet. secs 17 and 20
at temp. 4 sec. cor.

40. W
80. 03

Intersect N. and S. line
olska. S. of cor. of secs.
16, 17, 20, and 21.

Thence we run
S. 89° 57' W. on a true
line bet. secs. 17 and
20.

20. 00

Over rolling sand flat.
Dry Lake bottom on.

N. W. and S. E.

Wagon road bet. N. W.
and S. E.

31. 00

Leave bottom. Enter
sand.

40. 02

Set a sandstone 16x9x 5-
ins. 11 ins. in the ground
for tree cor. marked $\frac{1}{4}$
on N. face, and raised
a mound of stone 2 ft.
base 1 $\frac{1}{2}$ ft high n. of
cor.

Pits impracticable.

Foot of cliff 100 ft. high.

45. 00

Subdivisions of T. 23 S. R. 16 E.

	on. N. W. and S. E. ascend abruptly. Top of cliff. Thence over rough rocky point N. side of bench.
46.00	Descend abruptly. The cor. of sec. 17, 18, 19 and 20. Land mountainous, and rolling. Soil sandy and rocky. 2nd and 4th rate. no timber.
46.03	Mountainous land on 35.03 chs. Rolling land on 45.01 chs.

	West on a random line bet. sec. 18 and 19. Set temp. by sec. cor. Intersect N. bdy. of Tp. 41 ha. N. of cor. of sec. 13, 16, 19 and 24, perfectly described.
40.00	Thence westward, N. 89° 58' E on a true line bet. sec. 18 and 19.
41.20	Bulley diss. on. W.
2.00	Thence over very broken country draining to N. Sand flat be. N. and S. Rock knoll.
20.00	Cast edge broken bench.
27.00	Descend abruptly 20 ft. into red gulch diss. N. E.
33.00	Bottom of gulch diss. N. E. ascend.
36.00	On N slope of rock spur facing N. Descend.
45.00	Set a flint rock 16x8x5 in 11 in. in the ground for
46.20	

Subdivisions of T. 23 S. R. 16 E.

4 sec. cor. marked 4 m
N. face, and raised
a mound of stone 2 ft.
base 1 1/2 ft. high N. of cor.
Pits impractical.
Thence over rough rock
breaks on N. slope of
main bench to
The cor. of sec. 17, 18, 19, and
20.

8.20

Land mountainous.
Soil rocky.
4 th rate.
No timber.
Mountainous land
on S.E. side.
Sec. 23, 14.25 - At this cor.
we set off $30^{\circ}15'$'s on the
S.E. side, and at 0° on
L. mt. to leave the sun
on the meridian. The
resulting lat. is $38^{\circ}49'N.$

N. 0°13'W. between 17 and 18.
Done and S.

2.00

Foot of sand bluff.
Thence over rolling hills in
bottom of dry lake valley.
Center broad - hollow mark.
Center of broad hollow
mark dry. N. E.

30.00

Set a flint rock 14x10x6
in. 10 in. in the ground
for 4 sec. cor. marked 4 m
W. face, and raised a
mound of stone 2 ft.
base 1 1/2 ft. high W. of cor.
Pits impractical.

40.00

Leave broad - hollow mark.
wagon road N. in and S.E.
Set a sandstone 14x8x8 in.

50.00

68.00

80.00

Subdivisions of T. 23 S. R. 16 E.

10 ins. in ground
for cor. of sec. 7, 8, 17, and
18 marked with 4 notches
on S. and 5 notches on
C. edges and raised a
mound of stone 2 ft. base
 $1\frac{1}{2}$ ft. high W. of cor.
Pits impractical.

Land rolling.

Soil sand and gravel.
3rd rate.

No timber.

Rolling land on S. or C. slopes.

N. 89° 57' E. on a random
line bet. sec. 8 and 17.

Set temp. to sec. cor.
Intersect N. and S. line
6 lks. N. of cor. of sec.
8, 9, 16, and 17.

Thence westward,

West on a true line
bet. sec. 8 and 17.

Descend.

Bottom of small draw N. W.
descend.

Top of low spur slopes
N. Descend.

Foot of spur (W. side).
Wash draws N. C.

Thence over rolling flat
in Dry Lake valley.

Set at sandstone $14 \times 9 \times 7$
in 10 ins. in the ground
for 4 sec. cor. marked $\frac{1}{4}$ m
N. face, and raised a
mound of stone 2 ft.

base $1\frac{1}{2}$ ft. high N. of cor.
The cor. of sec. 7, 8, 17, and 18.

Land mountainous,

Subdivisions of T. 23 S. R. 16 E.

and rolling.

Soil sand and gravel.
3rd rate.

Fair timber.

Mountainous land on
16. or chs.

Rolling land on 62. or chs.

S. 89° 58' W. on a random
line bet. sec. 7 and 18.
Set temp. $\frac{1}{4}$ sec. cor.

Intersection of bdy. of Th.
4 blks. S. of the cor. of sec.
7, 12, 13, and 18 heretofore
described. Then a vertical
cut. on a true line bet.
secs. 7 and 18.
Over rock bench.

Rock reef face N. br. N.
and S. Ascend.

Wash dra. N. C.

Plane over broken rock.
Set a sandstone $1\frac{1}{2} \times 1\frac{1}{2} \times 6$
in., thin, in the ground
for $\frac{1}{2}$ sec. cor. marked by
on N. face and rained
a mound of stone 3 ft.
base 1 $\frac{1}{2}$ ft. high N. of cor.
Pits impracticable.

Ascend

Top of rock point faced.
Descend.

Foot of first ledge.

East side of rock bench
br. N. C. and S. W.

Descend abruptly 2 or ft.

Foot of steep descent.

Wagon road br. N. W.
and S. E.

The cor. of secs. 7, 8, 17, and 18.

40.00

86.00

6.00

17.00

46.00

48.00

48.35

49.10

54.00

60.30

82.00

86.00

Subdivisions of T. 23 S. R. 16 E.

Land mountainous.
Soil rocky and sandy.
no timber.
mountainous land
on S.E. W. cha.

Nov. 22, 1898.

- 12.00 m. 0° 03' W. bet. sec. 7 and 8.
South side of Dry Lake
wash dis. Cact.
- 18.00 north side of wash.
ascend.
- 30.00 Point about 4 cha. W. of
red cone.
- 40.00 Set a sandstone 14x6x4
ins. 10 ins. in the ground
for 4 sec. cor. marked
 $\frac{1}{4}$ on W. face and -dug
pits 18x18x12 ins. n. and
S. of stone 3 ft. dist. and
raised a mound of
earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft.
high W. of cor.
- 50.00 Head of gulch dis. S. C.
Foot of bluff be. S. W. and
S. E. ascend.
- 57.00 Top of main ascent.
Thenel over broken
rock trench dis. C and W.
- 60.00 Set a sandstone 18x8x6
ins. 13 ins. in the
ground for cor. of sec.
5, 6, 7, and 8 marked with
5 notches on S. and C.
edges and raised a
mound of stone 2 ft.
base 1 $\frac{1}{2}$ ft. high W. of cor.
Pits impracticable.
Land mountainous.
Soil sandy and rocky.

Subdivisions of T. 23 S. R. 16 E.

No timber.

Mountainous land
on so. ex. cha.

	East on a random line bet. secs. 5 and 8. Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line at cor. of secs. 4, 5, and 9. Hence we run W. on a true line bet. secs. 5 and 8. Ascend abruptly.
40. 00	Top of bluff 130 ft. high br. N. E. and S. W.
21. 40	Descend gradually. Ridge of rock br. N. E. and S. W. Ascend.
26. 00	Top of rock ridge br. N. E. and S. W.
36. 00	Descend gradually. On N. slope of rock knoll br. E. and W. Descend in shale rock.
40. 00	Set a granite rock 24 x 12 x 8 in., 18 in. in mound of rock (impossible to dig on account of rocks) for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face and raised a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable. Foot of knoll.
42. 00	Hence over sand hills and slate rock.
- 80. 00	The cor. of secs. 5, 6, 7, and 8. Land mountainous. Soil rocky and sandy.

1

Subdivisions of T. 23 S. R. 16 E.

4th rate.
No timber.
Mountainous land
on S. W. chs.

Nov. 23, 1898 - At 10⁰⁰ a.m.
I. m. t. we set off $38^{\circ}50'$
N. on the lat. arc $30^{\circ}26'5$
on the decl. arc and
determine a true me-
ridian with the solar
at the cor. of secs. 5, 6, 7,
and 8.

Thence we run
West. on a random line
bet. secs. 6 and 7.

40.00
85.71

Set temp. $\frac{1}{4}$ sec. cor.
Intersect N. bdy. of the
Tk. at the cor. of secs. 1, 6, 7,
and 12 heretofore described.

Thence we run
East on a true line bet.
secs. 6 and 7.

8.00

Edge of cliff on N. W. and
S. E. Descend abruptly.

10.20

Foot of cliff.
Thence over rough rocks
and sand knolls.

40.70

Dry lake wash about 2. w
chs. wide dra. S. E.

Wagon road in bottom
of wash. Ascend.

45.71

Set a sandstone $18 \times 12 \times 8$
ins. 12 ins. in the ground
for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on
N. face and raised a
mound of stone 2 ft.
base 1 $\frac{1}{2}$ ft. high N. of cor.
Pits impracticable.
Ascend.

Subdivisions of T. 23 S. R. 16 E.

60.71	Top of rock reef bns. n. and s., face W. Thence over sand hills and slab-rock. The cor. appears. 5, 6, 7, and 8. Land mountainous. Soil sandy and rocky. 3rd. and 4th rate. no timber. mountainous land on 85.71 sec.
40.10	2° 0' 03" W. on a random line bet. sec. 5 and 6. Set temp. to sec. cor.
80.90	Intersect n. bdy. of the Th. 12th. E. of cor. of sec. 5, 6, 3½ and 33 therefore described. Thence westerly S. 0° 08' C. on a true line bet. sec. 5 and 6, Descent.
6.10	Deep gulch doz. S. W. Descent.
12.56	South edge of red, white, and blue cliff bns. C. and W.
18.80	Descent abruptly 250 ft. Foot of steep descent. Thence over rough broken rocks.
35.90	Gulch do. W.
40.90	Set a sandstone 16x8x8 ft in. 11 in. in the ground for 4 sec. cor. marked 4 on W. face, and raised a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.

Subdivisions of T. 23 S. R. 16 E.

- 41.80 Rock gulch dir. W.
Thence over broken slab
rock toward. Ascending
gradually.
- 80.90 The cor. of sec. 5, 6, 7 and
8.
Land mountainous.
Soil rocky.
4th rate.
No timber.
mountainous land on
80.90 cha.
Nov. 23, 1898. - At 0¹⁰⁰m
l.m.t. sky overcast.
Impossible to take lat.
observation.
Nov. 23, 1898.

Meanders T 23 S of 16 E.

Meanders of the left bank
of Green River up stream.

We commenced at the meander
on gravel sees 31 and 36
on the E. bank of the T. L., here-
before described.

At this cor. for 24 1098.
we set of $38^{\circ} 47' N$. on the flat
arc, $2^{\circ} 37' S$ on the steel arc
and at 94° from a m. mt.
determine a true meridi-
an with the solar.

Hence we run with
meanders in sec 36.

Through dense brush.
 $N 83^{\circ} 45' W$ 2.00 chs.

$N 74^{\circ} 30' W$ 3.00 "

$N 69^{\circ} 00' W$ 3.00 .. Still in brush.

To meander cor.

of gravel sees 25 and 36
Land rough.

Soil sandy, sand rate.

Timber Cottonwood.

Land covered with dense
undergrowth on 8.00 chs.

Through sec 25.

Through dense brush.

$N 74^{\circ} 30' W$ 5.00 chs.

$N 53^{\circ} 00' W$ 2.00 " Old water wheel 200
chs to left at end of
course.

$N 54^{\circ} 00' W$ 5.00 " House end of course
shed and croal bus
 $N 30^{\circ} E$ 1.50 chs dist.

East end of island
Opposite. Barn brush.

$N 59^{\circ} 45' W$ 17.00 " Enters trees and
brush at end of course.

Meanders, T 23 S R 16 E.

Meanders of the left bank of
Green River up stream.

N 57° 00' W 8.00 chs Still in trees and brush.

N 50° 15' W 5.00 "

N 65° 00' W 8.70 "

N 50° 30' W 7.00 " Still in brush and trees

N 45° 45' W 13.00 "

N 14° 15' W 4.00 "

N 45° 30' W 14.00 "

N 35° 18' W 5.96 Still in brush and trees
To meander cor of
fuel secs 25 and 26.

Land rolling.

Soil sandy and rate.

Timber cottonwood.

Land covered with dense under
growth on 77.66 chs.

Mountainous land on 17.00

Mr 24-1898. at this cor we
set off 20° 39' S on the decline
and at 0° 00' m. lat. observe
the sun on the meridian.
The resulting lat is 38° 48' N.

Thence in sec 26.

Through dense brush.

N 52° 30' W 3.00 chs. Under edge of bank
15 ft high.

N 39° 30' W 5.00 chs.

N 32° 30' W 5.00 "

N 23° 30' W 6.00 "

N 21° 34' W 7.65 — Still in brush
To meander cor
of fuel secs 23 and 26.

Land rolling and rough.

Soil sandy and rate.

Timber scattering cottonwood.

Dense undergrowth on
26.65 - chs.

Meanders, 9 2 3 S 09 16 E.

Meanders of the left bank
of Green River up stream

Thence in sec 23.

Through dense brush.

N 29° 47' W 3.90 chs.

N 35° 00' W 6.00 "

N 13° 30' E 2.00. Still in willows.

N 44° 30' E 10.00 "

N 56° 00' E 7.00. From beginning of
course cabin bros
N 82° 30' E 1.70 chs dist.

N 46° 40' E 7.43. Still in brush and trees.
To meander cor of
fence see 23 and 24.

Land rolling.

Soil sand and gravel.

Twisted scattering cottonwood.

Dense undergrowth on.

36.33 chs.

Thence in sec 24

Through trees and brush.

N 49° 30' E 5.00 chs. Bank sand 15 ft high.

Leave brush and trees
at end of course.

N 55° 00' E 12.00 chs.

N 45° 30' E 9.00 chs At 4.50 cross irriga
tion ditch flows bro
N and S. At 4.60 fence
bro N and S. From
this point Wheeler
waters wheel to North
about 1.00 ch dist.

N 54° 45' E 17.00 " At 6.00 chs enters dense
brush. At 15.00 leave
brush. Cliff 50 ft high.

N 59° 30' E 9.00 " At two chains on
cliff 75 ft high.

N 32° 30' E 5.00 " Still on ledge.

Meanders, T 23 S, R 16 E.

Meanders of the left bank of
Green River up stream.

N $35^{\circ}00'E$ 4.00 chs.

N $32^{\circ}30'E$ 6.00 chs. At 50 chs leaves
ledges. Enters brush.

N $0^{\circ}18'W$ 10.75. At 4.00 mouth of
wash does west.

10.75 to mean
cor of first sec
13 and 24.

Land mountainous.

Soil sandy and stony.
Sand and 4th rate.

Finer cottonwood.

Dense undergrowth on 30.25 chs.

Mountainous land on 77.75.

Nov. 24 - 1898.

Thence in sec 13.

Through trees and brush.

N $14^{\circ}30'W$ 4.00 chs.

N $8^{\circ}00'W$ 25.00. At 2.0 chs mouth of
wash does west.
Enters ledges. leaves
brush at 33.00 chs.

N $33^{\circ}0'W$ 1.80. On top of ledge 60 ft
high.

N $17^{\circ}45'W$ 17.90. To point at S
side of dry canon

N $31^{\circ}15'W$ 6.10. To point at N side
of same canon
does west. Thence
along steep rock
ledges. Main gulch
at 2.10 chs.

N $30^{\circ}30'W$ 8.20.

N $34^{\circ}0'W$ 14.00. At 8.00 chs South
side of second canon.

Meanders T 23 S R 16 E.

Meanders of the left bank
of Green River up stream.

at 11.00 chs bottom
of canyon does west.
14.00 N of ledge
N side. Distance
along ledge 150 ft
high

N 31° 45' W 10.40 chs. To meander cor
of flood secs 12 and 13

Land mountainous.

Soil rocky H.H. rate.

No timber.

Dense undergrowth on 27.00 chs.
Mountainous land on 87.40 chs.

For 25-1898: At 10 h 00 m a.m.
line, t. we set off 38° 50' N on
the last arc; 80° 50' on the decl
arc and determine a true
meridian with the solar
at the meander cor of flood
secs 12 and 13.

Distance in sec 12.

N 40° 00' W 4.65 chs. At 1.00 ch leave
ledge. 110 ft of wash
does S.W. Enter
brush.

N 63° 30' W 8.00 chs. At 5.00 ch enters trees.

N 79.00' W 7.00 "

N 61° 35' W 2.05 ". To meander cor
of flood secs 11 and 12

Land mountainous.

Soil rocky and sandy H.H. rate.

Timber cottonwood.

Mountainous land on 31.70 chs.

Dense undergrowth on 20.70 chs.

Meanders 9235 or 16.E.

Meanders of the left bank
of Green River and streams

These in sec 11.

N $78^{\circ}30'W$ 14.00 chs through dense brush.

N $85^{\circ}30'W$ 13.00 "

S $84^{\circ}30'W$ 2.00. Bank sand 15 ft high.

N $82^{\circ}30'W$ 4.00.

N $62^{\circ}00'W$ 3.00.

N $30^{\circ}00'W$ 4.00. Bank sand 20 ft high.

N $4^{\circ}00'W$ 4.00.

N $20^{\circ}30'E$ 4.00.

N $29^{\circ}30'E$ 14.00.

N $47^{\circ}30'E$ 7.00. To west end of ledge
75 ft high.

Learn dense brush.

Dense over rough rocks.

N $55^{\circ}00'E$ 9.00.

N $18^{\circ}E$ 12.00.

N $14^{\circ}W$ 9.00. Along slide rock sloping
out. At 1.00 ch mouth
of canyon does exist.
South end of island
opposite end of
course.

N $35^{\circ}30'W$ 8.00 chs.

N $34^{\circ}45'W$ 6.68 To meander con
of gravel seas 2 and 11
Perpendicular cliffs
20 ft high 5.00 chs to
right.

Land mountainous and rolling.
Soil sandy and rocky 2nd & 4th.
No timber.

Dense undergrowth on 6.00.
Mountainous land on 44.68 chs.
Nov 25-1898 At 0th 00th l.m.t.
sky overcast, impossible
to take last observation.

Meander. § 23 S 07 16 E.

Meanders of the left bank
of Green River up stream.

Thence in sec. 3.

N 57° 30' W 4.00 chs. Enters brush at end
of course.

N 71° 00' W 23.00..

N 66° 45' W 15.00.. Leaves brush at end
of course, enters
cottonwood.

At 7.5-0 chs mouth

of large wash dr. S.

S 79° 15' W 14.00.. At 6.00 chs wash
1.00 ch wide chs S.

Leave trees enters
brush.

S 88° 00' W 3.85 - To meander cor
of fract sec 2 and 3.

Land mountainous and rolling.
Soil sandy and rocky.

2nd and 4th rate.

Thinner cottonwood.

Mountainous land on 4.00 chs.
Land heavily timbered or
covered with dense under-
growth on 5-5.85-chs.

Box. 25.1 878.

Thence in sec 3.

Through dense sagebrush.
West 3.00 chs

N 82° 30' W 5.00.. Bank 25 ft. high.

N 73° 15' W 6.00..

N 62° 15' W 5.00..

N 59° 45' W 6.00..

N 50° 30' W 5.00..

N 33° 30' W 6.00.. South end of island
opposite end of course.

N 27° 30' W 13.00.. Rolling hills 200 ft
to right.

Meanders 1

Meanders of the left bank
of Green River of stream.

N $21^{\circ}00'W$ 8.00 chs.

N $38^{\circ}30'W$ 9.50.. At 6.50 chs point
opposite N end of
island.

N $7^{\circ}30'E$ 5.00"

N $12^{\circ}15'E$ 5.00..

N $16^{\circ}00'E$ 7.00, Dense dense brush at
end of course.

N $29^{\circ}51'E$ 9.47.. To me under cover
of great trees 3 and 34
on the N side of the
Pp before desert.
etc.

Land rolling.

Soil sandy and strong
and not salt rate.

No timber.

Land covered with dense
undergrowth on. 85.50 chs.

Mountainous land on 9.47 chs.

Meanders 9 23 S 9 16 E.

Meanders of the right bank of Green River down stream.

We commence at the meander cor of first sec 3 and 34 on the N bank of the G. R. heretofore described.

At this cor Nov. 26, 1898.

we set off $38^{\circ} 01'$ N on the lat arc $31^{\circ} 01'$ S on the decl arc, and at 10 A.M. a m. s. n. determine a true meridian with the solar.

Hence we run with meanders in sec 3.

Through brush and trees.

S $9^{\circ} 30'$ W 3.00 chs. Part to right about 2.00 chs in width.

S $15^{\circ} 45'$ W 31.00 " At 20.00 chs mouth of wash does easterly.

S $2^{\circ} 30'$ W 16.00 " Leave brush at end of course. Enters rough ledges.

S $19^{\circ} 30'$ E 4.00 " Riffle opposite end of course.

S $5^{\circ} 30'$ E 42.00 " Under slide rock, 150 ft high.

S $75^{\circ} 00'$ E 10.00 "

S $85^{\circ} 30'$ E 11.70 To meander cor of first secs 2 and 3. Land mountainous.

Soil sandy and rocky. Sparse timber cottonwood.

Drive undergrowth on 40.00 chs mountainous land on 107.70 chs.

Nov. 26, 1898: - At this cor we set off $31^{\circ} 03'$ S on the decl arc and at 10.00 A.M. I. T. observe the sun on the true meridian. The resulting lat is $38^{\circ} 56'$.

AM 19

Manders T 23 S R 16 E.

Manders of the right bank
of Green River down

There in sec. 2.

Under rock ledge 75 ft high.

S $89^{\circ}00' E$ 12.30 chs. At 6.00 chs point
where gully reaches
river.

S $82^{\circ} E$ 8.00. Mouth of gully at
beginning of course
at 6.00, mouth of gully
ds N. E.

S $71^{\circ}30' E$ 7.00..

S $39^{\circ}30' E$ 3.00 ..

S $50^{\circ}05' E$ 2.33 .. On steep slope facing
east.

To meander cor of
gravel secs 2 and 11.

Land ~~mountainous~~.

Soil rocky 4th rate.

No timber.

Mountainous land on 32.63 chs.

There in sec 11.

Along steep bank 30 ft high.

S $53^{\circ}56' E$ 6.70 chs.

S $64^{\circ}30' E$ 16.00 .. At 8.00 chs leave
ledges. Enter rolling
sand hills and
scattering brush.

S $54^{\circ}00' E$ 4.00 chs.

S $45^{\circ}30' E$ 7.00 .. South end of island
opposite end of
course.

S $21^{\circ}30' E$ 4.00 .. Dense brush at end
of course.

S $6^{\circ}00' W$ 5.00 .. Cottonwoods & right.

S $36^{\circ}30' W$ 5.00 ..

S $52^{\circ}15' W$ 22.00 .. Mouth of "dry lake" wash
at end of course. ds s.E.

Manders T 23 S R 16 E.

Manders of the right bank of
Green River down stream.

S 19° 15' W 9.00 chs. At 4.00 chs. South bank
of wash. Lear brush.

Thence along steep
side of sand ridge.

S 6° 30' W 4.00..

S 10° 30' E 9.00..

S 5° 40' 00" E 7.40.. At 4.00 chs water
cliffs 80 ft high.

S 72° 45' E 9.00.. water willow brush
at end of course.

S 86° 15' E 13.80.. At 6.00 chs mouth
of broad flat wash.
on top of ledge.

Mouth of gully at end
of course.

S 78° 15' E 4.30..

S 76° 44' E 9.95.. At 3.00 chs learn
ledges.

To meander cor
of fuel-sites 11 and 12.

Land mountainous or rolling.
Soil sandy and rocky
3rd and 4th rate.

Timber cottonwood.

Undergrowth on 83.15 chs.
Mountainous land
on 136.25 chs.

Nov 26, 1888.

Thence in sec 12.

through brush.

N 89° 50' E 1.05 chs

S 63° 45' E 3.00 ..

S 56 30 E 3.25.. To meander
cor of fuel-sites
12 and 13.

Land rough

Meanders 9 & 3 S R 16 E.

Meanders of the right bank of
Green River down stream.

Soil sandy. 3rd rate.

No timber.

Dense undergrowth on 7.30 ac.

Distance in sec 13.

Mon 27-1898. At 9:00 a.m. a m.
l.m.t. we set off $38^{\circ} 50' N$ on
the lat and $21^{\circ} 11' S$ on the decl
arc and determine a true
meridian with the solar
at the meander con of
fract. secs 12 and 13.

Distance we run in sec 13.

Through brush.

$S 6^{\circ} 9' S 3^{\circ} E$ 7.75 - obs.

$S 44^{\circ} 30' E$ 5.00 " Bank about 25 ft -
high.

$S 34^{\circ} 30' E$ 10.00 "

$S 28^{\circ} 45' E$ 21.00 "

$S 15^{\circ} 45' E$ 22.40 " Still in brush.

$S 05^{\circ} 00' E$ 13.00 " Bank about 40 ft
high.

$S 0^{\circ} 24' E$ 10.95 To meander con
of fract. secs 13 and 24.

Land rough.

Soil sandy. 3rd rate.

No timber.

Dense undergrowth on 9.10 ac.

Distance in sec 24.

Through brush.

$S 5^{\circ} 20' E$ 3.09 obs.

$S 0^{\circ} 15' E$ 10.00 "

$S 22^{\circ} 00' W$ 5.00 " Thick brush along
bank.

$S 41^{\circ} 15' W$ 5.00 "

Meadows 9 235 or 16 E.

Meadows of the right bank of
Green River down stream.

S $51^{\circ} 30'$ W 5.00. Bank 15 ft high
sand and thick brush.

S $68^{\circ} 30'$ W 9.20.

S $72^{\circ} 00'$ W 22.70. Still in brush.

To meadows on
gravel sees 23 and 24
land rolling.

Soil sandy and sterile.

No timber.

Dense undergrowth on 59.89 ds.
Nov 27, 1898. At 6.00 m. from
sky over cast, impossible
to take hot observation.

Dense in see 23.

S $68^{\circ} 36'$ W 18.35 ds. On sand banks.

S $35^{\circ} 30'$ W 5.00. At 4.00 hollow ds
south, entirely

S $49^{\circ} 00'$ W 6.00.

S $16^{\circ} 45'$ W 14.00. End of course oppo-
site N end of ledge
150 ft high.

S $15^{\circ} 45'$ E 8.00. At 6.00 point opposite
Soda springs and
south end of island.
End of course of
of ledge 175 ft high.

S $33^{\circ} 30'$ E. 3.00.

S $38^{\circ} 00'$ E 3.00. Still on ledge.

S $24^{\circ} 30'$ E 4.87. To meadows on
gravel sees 23 and 24

Land mountainous.

Soil rocky and sandy.

3rd and 4th rate.

No timber.

Mountainous land on 62.22 ds.

Meanders of Green River down stream

Meanders of the right bank of Green River down stream

Distance in sec 26.
S $15^{\circ}45' E$ 5.60 chs. down ^{to} about 4 ledges
at end of course.

S $20^{\circ}45' E$ 14.00 .. Under ledges

S $30^{\circ}00' E$ 4.00 ..

S $40^{\circ}15' E$ 17.35 .. To meander end of
first sec 25 and 26.

Land moist anions.

Soil rocky and sandy.

3rd and 4th rate

No timber.

Moist anions land on 40.95 chs.

Distance in sec 25.

Over tops of ledges 80 ft high.

S $46^{\circ}30' E$ 4.00 chs.

S $44^{\circ}00' E$ 7.00 ..

S $48^{\circ}30' E$ 7.00 .. Still on ledge.

S $43^{\circ}30' E$ 4.00 ..

S $48^{\circ}30' E$ 5.00 .. Ledge ledges at end
of course.

S $42^{\circ}45' E$ 15.00 ..

S $28^{\circ}00' E$ 13.00 .. Enter trees and brush.
at beginning of course.

S $53^{\circ}00' E$ 2.00 ..

S $72^{\circ}00' E$ 5.30 .. At 2.50 chs north bank,
of San Rafael river.
5.00 south bank.

5.30 top of ledge
50 ft high. Clean brush.

N $43^{\circ}30' E$ 1.70 .. Isolated about 15.00 chs
long opposite end
of course.

S $70^{\circ}30' E$ 5.50 .. At 2.50 chs rock
gulch drs north.

S $56^{\circ}30' E$ 165 .. To meander end
of first sec 25 and 34.

Manders 9 23 S R 16 E.

Manders of the right bank
of Green River, down stream.

Land rough.

Soil sandy and rocky.

2nd and 4th rate.

Timber Cottonwood.

Mountainous land or land
covered with dense under-
growth on 71.15 chs.

There is sec 36.

S 67° 30' E 12.00 chs. at 3.00 chs have
ledge soft-hig.

There are rough
rocks.

S 72° 30' E 15.00 " over rocks and
ledges.

S 66° 30' E 5.18 To meander or of
fractures 31 and 36
on the E side of the
Gf therefore de-
scribed.

Land mountainous.

Soil rocky. 4th rate.

No timber

Mountainous land on 32.18 chs.

Nov. 27 - 1895.

General Description

This township contains some land
suitable for agricultural pur-
poses, such land being situated
exclusively along the banks of Green
River. The soil consists chiefly
of sand and clay; and contains
a considerable quantity of
alkali.

Green River which runs through
the eastern portion of the Gf

Admirers and Menders. of 9233 & 16 E.

carries a large body of water during all months of the year and would furnish an almost unlimited supply of water for irrigation purposes at a reasonable expense for ditch building.

The current is for the most part very moderate, only a few short rapids exist within the township and these are not precipitous enough to form water falls.

The average depth of the river is about six feet at time of low water and it can be forded at certain places only, and in time of low water.

The water is slightly alkali during the summer months but it can be used for drinking without injury to the health.

The northern portion of the township is principally of volcanic origin and is worthless for agricultural or grazing purposes.

The south western portion of the township consists of a high sandy plateau; covered with shale scale, white sage and buffalo grass, and at some seasons of the year good grazing may be found in this locality.

There are a few place bars along the

Subdivisions and meanders of T 23 S R 16 E.

river but no locations have been made, and there are no other indications of mineral within the township.

The timber consists entirely of cottonwood and is found only along river bank.

There is no water to be found except that furnished by Green River.

The San Rafael river flows north easterly through secs 35 and 36 and contained no running water at the time of survey.

In the center of the township is a broad flat known as "Dry Lake" which for a short time in the spring is covered with water.

A portion of Wallace D. Wheeler's ranch is situated sec 25. The house and main buildings are located in sec 31 of T 23 S R 17 E as is also a large portion of his land. About \$5,000 worth of improvements have been made within the township in fencing orchards etc.

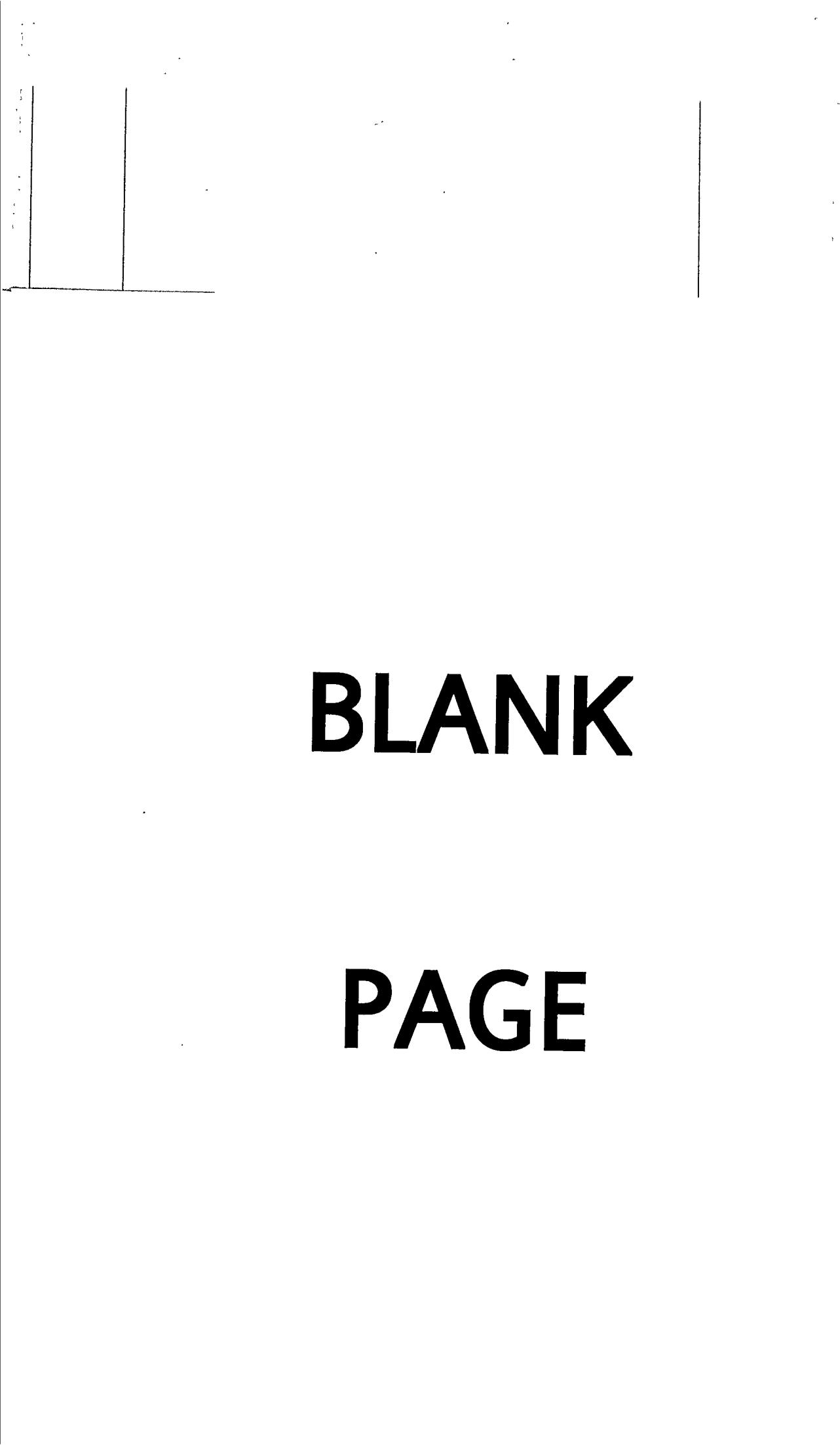
The ranch is at present occupied by R. C. Wheeler who also has a cabin in sec 25.

Alfred B Lewis

David H Blossom
U.S. Govt Surveyor

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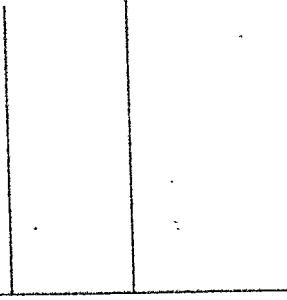
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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B. Severs and
David H. Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of The
subdivisions and meanders of T 20 S R 16 E and T 23 S R 16 E the Salt Lake
Base and meridian Utah. showing the respective capacities in which they acted:

F. W. Webb, Chainman.

F. W. Webb, Chainman.

F. W. Webb, Moundman.

F. W. Webb, Moundman.

F. W. Webb, Axman.

F. W. Webb, Axman.

William L. Webb, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B. Severs and
David H. Blossom, United States Deputy Surveyor, in surveying all
those parts or portions of the Subdivisions and meanders
of T 20 S R 16 E, T 22 S R 16 E and
T 23 S R 16 E
of the Salt
Lake Base meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah.

F. W. Webb, Chainman.

F. W. Webb, Chainman.

F. W. Webb, Moundman.

F. W. Webb, Moundman.

F. W. Webb, Axman.

William L. Webb, Axman.

William L. Webb, Flagman.

Subscribed and sworn to before me this 13th
day of November, 1898 }.

David H. Blossom.
U.S. Land Surveyor.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John C. H. Smith, United States Deputy Surveyor, for
the State of Michigan, by power of a contract received from
the Surveyor General, for the survey of Walhalla City,
in the State of Michigan, bearing date of the
day of October 31, 1809, I have well, faithfully, and truly, in my own
knowledge, and in conformity with the instructions furnished by the United States Surveyor
General, and the Manual of Surveying Instructions, and the laws of the
United States, surveyed all those parts or portions of Walhalla City,
of the State of Michigan, which are represented in the
said field notes as having been surveyed by me, and under my direction; and I do further solemnly
certify, that the corners of said survey have been established and perpetuated in strict accordance with
the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General, and in the specific manner described in the field notes, and that
the same are the original field notes of such survey; and should any fraud be detected, I will suffer
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1816.

John C. H. Smith
United States Deputy Surveyor.

described by said John C. H. Smith, and sworn to before me }
this 31 day of October, 1809. }

CC: 100
CS: 100
C: 100

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Walhalla City, Oct. October 31, 1809

Signed and directed by J. C. H. Smith.

The foregoing field notes of the survey of Walhalla City, Michigan, dated October 31, 1809, having been
checked and the necessary corrections and explanations made, the said field notes, and the
same transcript, are hereby approved.

Jacob B. Blair
United States Surveyor General.

A copy of the foregoing transcript of the field notes of the above-described survey, in
two parts, has been correctly copied from the original notes on file in this office.

Jacob B. Blair
United States Surveyor General.

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BOOK A-255

R.J.B.

FIELD NOTES

OF THE ^{Re} SURVEY OF THEFourth Standard Parallel South,throughRange 21 East.Of the Salt Lake Base ^{and} Meridian,
State of Utah.

AS SURVEYED BY

W. B. Lewis and David H. Blossom, United States Deputy Surveyors
under his Contract No. 219, dated November 12th, 1897
Survey commenced November 30th, 1898
Survey completed December 1st, 1898

6-151

Platting J. W. B. 2-00-00 1

NAMES AND DUTIES OF ASSISTANTS.

A. H. Rock	Chairman
G. Mortenson	Chairman
C. Andersen	Secretary
C. Andersen	Assessor
Frank A. Gorley	Flagman

In addition to officers of Rock & Mortenson Co.
Book A

BOOK A.255

INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

and.

We, _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman.

, Chainman.

Subscribed and sworn to before me this _____
day of _____, 189_____ }



I, C Anderson and.

We, _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ^{me} to the best of ^{our} skill and ability, in the survey of ^{the} 4th standard Parallel south through range 2¹ East of the Salt Lake Base and Meridian Utah.

C. C. Anderson, Moundman.

, Moundman.

Subscribed and sworn to before me this 30th
day of November, 1898 }



I, C Anderson and.

We, _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corner and other duties, according to instructions given ^{me} to the best of ^{our} skill and ability, in the survey of ^{the} 4th standard Parallel south through range 2¹ East of the Salt Lake Base and Meridian Utah.

C. C. Anderson, Axman.

, Axman.

Subscribed and sworn to before me this 30th
day of November, 1898 }



David

W. Duff

I, Frank A Gorley, do solemnly swear that I will well and truly

perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of ^{the} 4th standard Parallel south through range 2¹ East of the Salt Lake Base and Meridian Utah.

F. Frank A Gorley, Flagman

Subscribed and sworn to before me this 30th
day of November, 1898 }



David

W. Duff

Survey of 4th Standard Parallel South, through range 21 E.

Resurvey commenced Nov 30 -
1898 and executed with a
W. and L. E. Gurley light
mountain transit with solar
attachment, for a description
of which see book, A

We examine the adjustments
of the transit and correct the
level and collimation errors;
then to test the solar apparatus
by comparing the indications
resulting from solar observa-
tions made during a.m.
and p.m. hours, with a
true meridian determined
by observations on Polaris
we proceed as follows.

At the standard cor of $9^{\circ} 20' S$
Ranges 21 and 22 East which
is a sand stone $32 \times 20 \times 5$ ins
standing in mound of rock,
Latitude $39^{\circ} 02' N$, longitude
 $109^{\circ} 34' W$ we set off $39^{\circ} 02' N$
on the lat arc; $61^{\circ} 48' S$ on the
decl arc and at $4^{\text{h}} 00^{\text{m}}$ p.m.
l.m.t. determine with the solar
a true meridian and mark
a point thereon a stone
firmly set in the ground
5 chs N of the cor.

Nov. 30-1898

Dec 1-1898:- At $2^{\text{h}} 36^{\text{m}}$ a.m.,
l.m.t. we observe Polaris at
western elongation in accord-
ance with the Manual of
Instructions, and mark
a point in the line thus
determined on a plug
driven in the ground
5 chs N of our station.

Survey of 4th Standard Parallel South, through range 2

At 8⁴⁰ a.m. l.m.t. we lay off the azimuth of Polaris $89^{\circ} 35.5'$ to the east and mark the True Meridian thus determined by cutting a small groove in the stone set Nov 30 1898 on which the true meridian falls 0.2 ins east of the mark determined by the solar.

At 9⁴⁰ a.m. l.m.t. we set off $39^{\circ} 02' N$ on the lat arc $21^{\circ} 57.8'$ on the decl arc and mark a point in the true meridian determined with the solar by a cross on the stone already set 5 chs N. of our station; This mark falls 0.3 ins east of the true meridian established by the Polaris observations.

The solar apparatus, by p.m. and a.m. observations defines positions for true meridians respectively about $0' 11''$ west and $0' 16''$ east of the meridian established by the Polaris observations; Therefore we conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 9⁴⁰ a.m. is $N 15^{\circ} 32' W$; the angle thus determined reduced by the table page 100 of Hennig gives the mean mag decl $15^{\circ} 30' E$.

Knowing from previous retransit that we comes on the fourth standard

Survey of 4th Standard Parallel south, through Range 21 E.

Parallel south in range
21 east can be found on
resurvey the same as follows.
From the standard cor of
township 30 S., ranges 21 and
22 east described above we
run west on S. bdy of sec 36.
Wash dries south.

West edge of clay bank lies
N and S. Discard.

Wash dries south.

Wash dries S.E.

old wagon road lies N.W.
and S.E.

Top of rock point - faces S.E.
difference in measurements
of 40.00 chs; by two sets of
chambers is 18 lbs; position
of middle point

By 1st set 39.91 ch

By 2nd set 40.09 chs; the
mean of which is

No old $\frac{1}{4}$ sec cor can be
found.

Set a sandstone 15 x 10 x 8 ins
10 ins in the ground for
standard $\frac{1}{4}$ sec cor marked
S.C. $\frac{1}{4}$ on N face and raised
a round of stone 2 ft base
 $1\frac{1}{2}$ ft high N of cor.

Pits impracticable.

Small gully dries S.E. Assend.

Top of small ridge lies N and
S. Thrice over rough rock
knolls.

Junction of two washes one
from west, one from north
drain S.E. Assend in wash.

Leave wash heads N.W.

Difference between measure-
ments of 40.00 chs by two sets

DUVU
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Survey of 4th Standard Parallel South, through Range 24 E.

of chain men is 22 lbs;
position of middle point

By 1st set 79.89 chs

By 2nd set 80.11 chs, the mean
of which is

- 80.00 No old cor of secs. 35 and 36
can be found.

Set a flint-rock $20 \times 12 \times 3$ ins
15 ins in mound of stone,
(impossible to dig on account
of rocks) for standard cor of
secs 35 and 36; marked S.C. on
N with 1 groove on E and
5 grooves on W faces; and
raised a mound of stone
2 ft. base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.

Land mountainous.

Soil rocky. 4th rate.

No timber.

Mountainous land on 8000 chs.
Dir 1.1898. At this cor we
set off $21^{\circ} 53' 30''$ on the decl. arc
and at ob 00 m limit, observe
the sun on the meridian.
The resulting lat is $38^{\circ} 02' N$.

West on S bdy of sec 35.

Ascend.

1.00 Top of bench bds N and S.

3.25 - west side of bench descended.

5.00 Gully drs North.

10.00 Gully drs N.E. Ascend.

14.50 Low ridge bds N.W. and S.E.
descend.

20.00 Wash drs S.E.

21.10 Trail bds N and S.

36.00 Bank in wash last-mentioned
drs N.E. heads N.W.

37.00 Foot of ridge

Survey of Standard Parallel South; through Range 21 E

- difference between measurements of 40.00 chs by two sets of chainmen is 16 ftcs; position of middle point,
By 1st set 39.92 chs
By 2nd set 40.08 chs, the mean of which is,
40.00 No old standard cor are can be found.
Set a sand stone 24x9x8 ins 18 ins in mound of rock (impossible to dig on account of rocks) for standard $\frac{1}{4}$ see cor marked S.C. $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor.
Ridge impracticable
Top of rock ridge point bds N.W. and S.E. slopes S.E. descend.
51.00 North side of head of gulch obs S.E. Ascend.
67.35 Saddle of clay point at head of gulch. Turn over rough south slope.
77.00 Top of clay point bds south. descend abruptly.
difference between measurements of 80.00 chs by two sets of chainmen is 24 ftcs; position of middle point.
By 1st set 80.12 chs
By 2nd set 79.88 " the mean of which is
80.00 Head of rock gully bds south.
No old standard cor of nos 34 and 35 can be found.
Set a sand stone 24x12x10 ins 18 ins in mound of rock (impossible to dig on account of rocks) for standard

Survey of 4th Stand Parallel South, through Range 21 E.

Cov of secs 34 and 35, marked S.C. on N with two grooves on E and 4 grooves on W face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cov. Pits impracticable. Land mountainous. Soil rocky, 4th rate. No timber.

Mountainous land on 8,000 elev.
Dec 1 - 1888.

For general description see
Fourth Stand parallel south
through range 21 E.

Alfred B Davis.
David H Blossom.
U.S. Day Surveyor.

No officer authorized to administer oaths other than myself being available without great inconvenience, expense and delay, I administer the required preliminary and final oaths.

David H Blossom,
U.S. Day Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Davis and
David A Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of the 40th Standard
Parallel south through range 21 east of the
Salt Lake Base and meridian Utah
showing the respective capacities in which they acted:

....., Chainman.

....., Chainman.

C. Andersen Moundman.

C. Andersen Moundman.

C. Andersen Axman.

Frank A Gorley Axman.

Frank A Gorley Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Davis and

David A Blossom United States Deputy Surveyor, in surveying all
those parts or portions of the 40th Standard Parallel south,
through ranges 21 east

..... of the Salt

Lake Base ^{meridian}, State of Utah which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah.

....., Chainman.

....., Chainman.

C. Andersen Moundman.

C. Andersen Moundman.

C. Andersen Axman.

F. Frank A Gorley Axman.

F. Frank A Gorley Flagman.

Subscribed and sworn to before me this 1st }
day of December, 1885 }



David A Blossom
U.S. Dep. Surveyor

FINAL OATH OF UNIT

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, bearing date of the United States Surveyor General for _____, day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____.

meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

, 189

The foregoing field notes of the survey of _____

executed by _____, under his contract No. _____, dated _____, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of retracement of the 4th
Standard Parallel South through range 16 East and the
Salt Lake Base and meridian Utah.
showing the respective capacities in which they acted:

A.H. Rock

, Chainman.

G Mortenson

, Chainman.

, Moundman.

, Moundman.

, Axman.

, Axman.

, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, in surveying all
those parts or portions of the 4th Standard Parallel South through
range 16 East and reSurveying the same
through range 21 East

of the salt
lake Base and meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
as been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah.

A.H. Rock

, Chainman.

G Mortenson

, Chainman.

, Moundman.

, Moundman.

, Axman.

, Axman.

, Flagman.

scribed and sworn to before me this 1st
day of December, 1898

SEAL

David H Blossom
U.S. Dep Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____
of the _____
meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189_____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Colfax City, Oct 31, 1897
The foregoing field notes of the survey of the Standard Parallel South
Through Range 21 East of the Colfax Base & Meridian, W.M.

executed by *Celso P. Peers & David A. Johnson*
under his contract No *219*, dated *October 1st*, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob T. Blain
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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BOOK A-255

FIELD NOTES

OF THE SURVEY OF THE

*Fourth Standard Parallel South,**between,**Townships 20th and 21st South**through**Ranges 21st and 20th East.**Of the Salt Lake Base Line Meridian,
State of Utah.*

AS SURVEYED BY

*Paul B. Lewis and David H. Blasius, United States Deputy Surveyors
 under this Contract No. 219, dated Nov 12th, 1897
 Survey commenced December 2nd, 1898
 Survey completed December 5th, 1898*

6-151

*Stand (height) 4' 0" 00 R 263
 " " " 5' 10" 00 P 308*

NAMES AND DUTIES OF ASSISTANTS.

H. H. Rock and G. Mortenson Chairmen.

H. C. Morten and C. Andersen Chairmen.

C. Andersen Mosseman.

H. C. Morten Officer.

F. A. Gorley Flagman.

BOOK A-255

INDEX DIAGRAM.

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PRELIMINARY OATHS OF ASSISTANTS.

We, A.H. Rock, J. Mortenson, and H.C. Mortens by C. Anderson, do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

Fouth Stand Parallel south through ranges 21 and 20 east of the Salt Lake Base Meridian, Utah

A.H. Rock, Chairman.

J. Mortenson, Chairman.

H.C. Mortens

C. Anderson

David H. Blossom,

U.S. Surveyor

Subscribed and sworn to before me this 2nd
day of December, 1898



We, J. C. Anderson and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

Fouth Stand Parallel south through ranges 21 and 20 east of the Salt Lake Base Meridian, Utah

C. Anderson, Moundman.

, Moundman.

Subscribed and sworn to before me this 3rd
day of December, 1898



David H. Blossom

U.S. Surveyor

We, H.C. Mortens and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

Fouth Stand Parallel south through ranges 21 and 20 east of the Salt Lake Base Meridian, Utah

J. C. Mortens, Axman.

, Axman.

Subscribed and sworn to before me this 2nd
day of December, 1898



David

U.S. Surveyor

I, P.A. Gorley, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

Fouth Stand Parallel south through ranges 21 and 20 east of the Salt Lake Base Meridian, Utah

P.A. Gorley, Flagman.

Subscribed and sworn to before me this 2nd
day of December, 1898



David

U.S. Surveyor

4th Standard Parallel South, Through Range 21 E.

Survey commenced Dec. 2, 1898
and executed with a transv. L. E.
Barley light mountain transit
with solar attachment for
a description of which see
book, "A".

X X

For a complete test of solar
apparatus see book "B."
on recovery of 4th Stand
Parallel S. Through range 21 E.
We begin at the standard
corner of secs 34 and 35 - T 30
S R 21 E which was established
Dec. 1, 1898. Latitude $39^{\circ}02'N$,
longitude $109^{\circ}36'W$.

At 9 h 00 m a.m. l.m.t. we
set off $39^{\circ}02'N$ on the lat arc
 $22^{\circ}00'S$ on the decl arc and
determine a true meridian
with the solar at the standard
corner of secs 34 and 35.

Hence we run
west on S side sec 34.
Since it is impossible on
account of precipitous cliffs
to chain west from standard
corner of secs 34 and 35 - we
triangulate as follows.

In order to determine dist
we set a flag on top of main
cliff 350 ft. high, due west
from cor; then measure
a base line south.

Difference between measure-
ments of 28.00 chs by two sets
of chainmen is 10 chs.

Position of middle point
By 1st set 28.05 chs.

By 2nd set 27.95 - chs. The mean
of which is 28.00 chs which
is the length of base line used.

N 42° 10' W

Standard Parallel South, Through Range 21 E.

- From south end of base the flag
bearing N 42° 10' W.
- From the flag the south end
of the base has S 42° 10' E.
The dist is therefore; tan γ
 $42^{\circ} 10' \times \text{base}$, or $.90569 \times 28$
 $= 25.36 \text{ chs.}$
- 25.36 ^{in NE and SW}
Top of cliff, due west from stand
and cor of secs 34 and 35.
Since no contours our
line west.
- Enter cedars.
- 34.00 Cedar cedars. West side of
rock bench has N and S.
Ground abruptly.
difference between measurements
of 14.64 chs by two sets of chain-
men is 4 ft; position of
middle point,
By 1st set 14.66 chs
By 2nd set 14.62 chs the
mean of which is 14.64 chs
which added to 25.36 chs makes
Set a sandstone 20x10x4 ins
15 ins in mound of rock,
impossible to dig on
(rocks) for stand and by
Cor marked S.E. $\frac{1}{4}$ on N face
and raised a mound of stone
2 ft high $\frac{1}{2}$ ft high N of cor.
This impracticable.
- Ground over rough rock slide
Bottom of gulch drs S.W.
Bottom of main canyon drs S.E.
ascend.
- 76.90 Trail has N and S.
difference between measure-
ments of 54.64 chs by two sets
of chainmen is 10 ft;
position of middle point,
By 1st set 54.59 chs

South Standard Parallel South, through Range 21 E.

	By 2nd set 54.6 ft the mean of which is 54.64 chs. which added to 23.36 chs makes
80.00	Set a flint stone 18x12x12 ins 12 ins in the ground for standard cor of secs 33 and 34. marked S.E. on N, with 3 grooves on E and W faces and raised on mound of stone 2 ft high 1½ ft high N of cor. Rito impracticable.
	Land mountainous.
	Soil rocky. 4th rate.
	No timber.
	Mountainous land on 80.00 chs. Dec 2-1898. At this cor or set off 22° from the due N and at 600m from, to observe the sun on the meridian. The resulting lat is 39° 52' N.
	West on S side sec 33.
5.00	On sun all flat bench.
17.78	Around abruptly to
	Top of abrupt ascent on rock bench has N and S. Enter cedar. West edge of bench. Leave cedars. Around abruptly over rock ledges.
34.57	difference between measurements of 40.00 chs, by two sets of chain men is 20 chs; position of middle point,
	By 1st set 39.90 chs
	By 2nd set 40.10 chs; the mean of which is
40.00	Set a sand stone 18x15x4 in 12 ins in mound of rock, impossible to dig on account of rocks) for standard

D 11 June

Fourth Standard Parallel South, through Range 21

- see cor; marked S.C. $\frac{1}{4}$ on N face; and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Pits impracticable descend.
- 44.00 Wash in bottom of canon does south. Ascend abruptly up west-side of canon.
- 59.90 Top of rock bench 350 ft high lies N and S. Enter cedars and pine.
- 63.00 Leave trees.
- 76.00 Trail lies N.E. and S.W.
- 79.00 Rocky point faces south about 400 chs south of round fairable. Difference between measurements of 8000 chs, by two sets of chainmen is 16 chs; position of middle point.
By 1st set 80.08 chs.
By 2nd set - 79.92 chs the mean of which is
- 80.00 Set-a sandstone $24 \times 14 \times 3$ ins 18 ins in mound of rock, impossible to dig on account of rocks, for standard cor of see 32 and 33 marked S.C. on N. with 4 grooves on E and 2 grooves on W faces, and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Pits impracticable. Land mountainous.
- Soil rocky, 4 th rate.
- Timber small cedar and pine.
- Cedar and pine on 19.89 chs.
- Mountainous land on 80.00 chs.
- West on 8 bdy see 32.

North Standard Parallel South, Through Range 21 E.

	descend
22.5	Small wash obs south westly.
13.00	Enter cedars and pine
14.00	Trail bus N.W. and S.E.
22.50	East edge of rock gulch obs S.W. descend. Leave cedars.
24.60	Bottom of gulch. ascend.
27.42	Top of west side. enter cedar and pine.
35.00	West side of rock branch descend abruptly. leave trees. Difference between measurements of 40.00 chs. by two sets of chain men is 18 lbs; position of middle point
	By 1st set 39.81 chs
	By 2nd set 40.09 chs the mean of which is
40.00	In slide rock facing west. Let a flint rock, 24 x 14 x 3 ins 18 ins in mound of rock (impossible to dig on account of rocks) for standard $\frac{1}{4}$ sec cor marked S.C. $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N. of cor. Pits impracticable.
55.00	descend. wash bottom of main canon obs S.E. descend abruptly 200 ft.
70.30	Top of west side canon. enter cedars and pine.
74.00	edge of gulch obs N.E. descend.
75.50	Bottom of gulch. ascend
77.00	Top of west side. ascend. Difference between measure- ments of 80.00 chs by two set- of chainmen is 24 lbs, position of middle point
	By 1st set 80.12 chs

Fourth Standard Parallel South, Through Range 212

- 80.00 By 2nd set 79.88 chs the mean
of which is
On spur slopes N.E.
Set a sand stone $18 \times 14 \times 2$ ins.
 12 ins in the ground for stand-
ard cor of secs 31 and 32
marked S.C. on N with 5 grooves
on E, and 1 groove on W
faces and raised a mound
of stone 2 ft - had $1\frac{1}{2}$ ft high
North of cor. Pits impractical
Land mountainous.
Soil rocky. 4th rate.
Timber low cedar and pine.
Cedar and pine on 80.00 chs.
Mountainous land on 80.00 chs.
Dec. 2nd 1898.

Dec. 3-1898: At 9:00 a.m. a.m. long.
we set off $39^{\circ} 0' 2''$ N on the
lat arc $28^{\circ} 0' 55''$ on the steel arc
and determine a true mer-
idian with the solar at the
standard cor of secs 31 and
32.

Thence we run.

West on S. bdy sec 31.

Ascend abruptly in scattering
cedars and pine.

19.10 Top east-side of ridge b/s
N.W. and S.E.

24.25 West-side of ridge and top
of ledge 200 ft high facing
west. Low cedar and pine.
Descending abruptly.

Difference in measurement
of 24.45 chs by two
sets of chainmen, is .6 chs;
positions of middle point
by 1st set 24.48 chs.

North Standard Parallel South, through Range 21 E

24.25-

By 2nd set - 24.42 chs; the mean of which is
Since it is impossible on account of cliff to chain further or triangulate as follows.
At 24.25-chs leave flag on line and set a point for transit on line at foot of ledge. We then proceed to transit-point and measure a base line S 5°E 14.00 chs to a point whence the flag lies N 53°12' E from the flag the south end of the base lies S 53°12' W and the angles taken in order of measurement are respectively 85°-58°12' and 36°48' their sum being 180° we complete dist as follows.

$$\log \sin 58^{\circ}12' = 9.929364 \\ \log 14.00 = \underline{1.146128} \\ 11.075492$$

$$\log \sin 36^{\circ}48' = \underline{9.777444} \\ \log \text{required dist} = 1.398048, \\ \text{therefore the required dist} \\ \text{is } 19.86 \text{ chs.}$$

Difference in measurement of 14.00 chs. for base line, by two sets of chaining is 4 chs; position of middle point

By 1st set 13.98 chs

By 2nd set 14.02 chs, the mean of which is 14.00 chs. It is impossible on account of ledges to obtain longer base.

$$19.86 \text{ chs} + 24.25 \text{ chs} = 44.11 \text{ chs} \\ \text{From transit point chain east } 4.11 \text{ chs}$$

$$44.11 - 4.11 = 40.00 \text{ chs}$$

Fourth Standard Parallel South, through Range 21

- 40.00 Foot of ledge 150 ft high has
2 and 1/2.
Set a ^{sandstone} 18 x 14 x 4 ins 12 ins in
the ground for standard 1/4 sec
or marked S.C. 1/4 on N face
and raised a mound of
stone 2 ft base 1 1/2 ft high
N of cor. Bits impracticable.
Hence we run west.
- 41.00 Small wash obs 8. m. ascend
over rough rocks.
- 70.00 Foot of ledge 100 ft high.
Ascend abruptly.
- 73.98 Top of cliff in head of
box canyon obs S.E. Ascend.
Enters scrub cedar and pine.
Difference between meas-
urements of 60.14 chs by two
sets of stations is 10 chs
position of middle point
By 1st set 60.19 chs.
By 2nd set 60.09 chs. The
mean of which is 60.14 chs
which added to 19.86 makes
- 80.00 set a sand stone 20 x 14 x 6 ins
15 ins in mound of rock
(impossible to dig on
of rocks) for standard cor
of Tps 20 & Ranges 20 and
21 East, marked S.C. 20 S
on N, 21 E on E and 20 E
on W faces, with 6 grooves
on N.E. and W faces; and
raised a mound of stone
2 ft base 1 1/2 ft high N of cor.
Bits impracticable.
Land mountainous.
Soil rocky 40% rate.
Timber scrub pine and
one 30.27 chs.
- Mountainous land on 80.00
dec 3 - 1898

Fourth Standard Parallel South, through Range 20 -

Survey commenced Dec 3 1898, and executed with a W and L.E. Gurley light mountain transit with solar attachment for a description of which see book 'A'

In order to test the solar apparatus by comparing the results of observations on the sun, made during a.m. and p.m. hours, with a true meridian determined by observations on Polaris we proceed as follows.

At our camp which is situated near the center of T 21 S R 20 E we set off $38^{\circ}58'N$ on the lat arc (the same being the lat at camp as obtained by a previous observation), $22^{\circ}08'S$ on the decl arc and at $44^{\circ}00'm$ p.m., l.m.t. mark the true meridian thus determined with the solar by a cross on a stone firmly set in the ground 5 cts N of the instrument.

Dec 3-1898

Dec 4-1898: At 3rd 25.m a.m. l.m.t. we observe polaris at western elongation, in accordance with the manual of instructions and mark a point in the line thus determined, on a peg driven in the ground 5 cts N of our station.

Fourth Standard Parallel South, through Range

At 8⁴⁰ m a.m. l.m.t. we lay off the azimuth of Polaris, $1^{\circ}35.5'$ to the east and mark the true meridian ~~this~~ determined by cutting a small groove in the stone set Dec. 3 1898. on which the true meridian falls 0.2 ins east of the mark determined by the solar.

At 9⁴⁰ m a.m. l.m.t. we set off $38^{\circ}58' N$ on the lat arc $22^{\circ}16' S$ on the decl arc and mark the true meridian determined with the solar by a cross on the stone already set 5 chs N of our station; this mark falls 0.2 ins east of the true meridian established by the Polaris observation.

The solar apparatus by J.m. and a m observations defines positions for true meridians about $0''11''$ west and $0''11''$ east of the meridian established by the Polaris observations; therefore we conclude that the adjustments of the instrument are satisfactory.

We may note the bearing of the true meridian at 8⁴³ m a.m. l.m.t. is $N15^{\circ}26' W$ the angle thus determined reduced by the table for a 100° ^{of 800} meridian the mean may dev. $15^{\circ}18' E$.

We begin at the Standard

205

Fourth Standard Parallel South, Through Range

- corner of Tps 20 & Range
20 and 21 east established
by us Dec 3rd 1888.
- Thence we run
west on S bdy see 36.
Ascend through cedars and
fir on N slope.
- 8.58 Top of ridge bds N and S.
Descend abruptly. Lean trees.
There are numerous coal
croppings along this ridge.
- 18.00 Bottom of gulch bds south.
Ascend.
- 28.45 Top of ridge east side. bds
N and S descend.
Numerous coal croppings
in this vicinity.
Difference between measure-
ment of 40.00 chs, by two
sets of chainmen is 16 chs,
position of middle point
By 1st set 39.92 chs
By 2nd set 40.08 chs the
mean of which is
40.00 chs of gulch bds south but
set a sand stone 16x12x4 ins
11 ins in mound of rock
(impossible to dig or account
of rocks) for standard $\frac{1}{4}$
see cor marked S.C. $\frac{1}{4}$ on
N face and raised on
mound of stone 2 ft base
 $\frac{1}{2}$ ft high N of cor.
This impracticable.
- Bottom of gully. Ascend.
Top of spur bds N and S side
S. descend.
- 41.00 Cross head of gulch bds S. & S.
Ascend.
- 54.73 Top of spur bds N and S side
S. descend.
- 62.23 Cross head of gulch bds S. & S.
Ascend.
- 69.78 Top of red ridge bds N.E.
and S.W. descend.

Fourth Standard Parallel South, Through Range 20 E.

Difference between measurements of 80.00 chs by two sets of chainmen is 24 chs.

Position of middle point
By 1st set 80.12 chs

By 2nd set 79.88 chs. The
mean of which is

80.00 On round rock cliff at
east side of main gulch
ds 8. W.

Set a sand stone 14x12x6 ins
10 ins in mound of rock.
impossible to dig out

of rocks) for standard
cor of sec 35 and 36
marked S.C. on N with 1
groove on E and 5 grooves
on S faces and raised
a mound of stone 2 ft
base 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.

Land mountainous.

Soil rocky 4th rate.

Timber low pine and cedar
on 8.58 chs.

Mountainous land on 80.00 chs.

Sec 4-1898: At this cor we
set off 22° 18' S on the decl and
at 0400 m. l.m.t. observe
the sun on the meridian.
The resulting lat is 39° 0' N.

West on S bdy of sec 35.

Descend from round rock
ledge 40 ft high.

3.50 Bottom of ravine ds 8. W.
Ascend over rough rocks.

33.4 Top of red spur 150 ft high
ws N & S. Slopes south.
descend abruptly.

forth Standard Parallel South, through Range 20 E.

Difference between measurements of 33.48 chs by two sets of chainmen is 1/2 lk., position of middle point.

By 1st set 33.54 chs

By 2nd set 33.42 chs the mean of which is 33.48 chs. Since it is impossible to chain further on account

of precipitous cliffs on Triangulate as follows.

Leave flag no 1 on line at a point 33.48 chs west of standard corner of secs 35 and 36, and also set a flag no 2 on line in bottom, west of flag no 1. From them proceed to flag no 2 in bottom and measure a base line south 10.00 chs to a point whence flag no 1 has N 55° 27' E. From flag no 1 south end of base hrs S 55° 27' W.

Difference between measurements of 10.00 chs by two sets of chainmen is 2 lk.; position of middle point

By 1st set 10.01 chs

By 2nd set 9.99 chs the mean of which is 10.00 chs which dist was used for a base line.

The required dist is therefore, tang 55° 27' x base or $1.45229 \times 10 = 14.52$ chs. 14.52 chs added to 33.48 chs makes 48.00 chs to triangulation point.

From triangulation point we chain east 8.00 chs.

Fourth Standard Parallel South, Through Range 20 E.

- 48.00 - 8.00 = 40.00 chs.
- 40.00 Foot of cliff facing west.
Set a sand stone $20 \times 12 \times 9$ ins
15 ins in ground. Of rock. It is
possible to dig in
of rocks.) for standard
 $\frac{1}{4}$ sec cor. marked S.E. $\frac{1}{4}$ on
N face and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
On N. of cor. Pitt impracticable
triangulation point.
There are no run west
52.5 Main wash bottom of canon
dries south and S.W.
73.5 In head of box gulch dries S.E.
at foot of cliffs. Ascend
abruptly
73.93 Top of ledge. Ascend over
low ledges.
Difference between measure-
ments of 40.00 chs. from $\frac{1}{4}$ sec cor by ^{first}
sets of chainmen is 16 chs.
position of middle point,
By 1st set 40.08 chs.
By 2nd set 39.92 chs. The
mean of which is 40.00 chs
which added to 40.00 chs to $\frac{1}{4}$ sec
corner makes
- 80.00 Under first cliff 15 ft high
lies N. and S.
Set a red sand stone $16 \times 12 \times 10$
11 ins in the ground for stand-
ard corner of secs 34 and 35.
marked S.E. on N with 2
grooves on E and 4 grooves
on W faces and raised
a mound of stone 4 ft
base $1\frac{1}{2}$ ft high $\frac{1}{4}$ of
cor. Pitt impracticable
Land mountainous
Soil rocky. 40% slate
no timber.

Fourth Standard Parallel South, Through Range 20^E.

Mountainous land on 8000 ft.

Brent 4 M. 1888. - At 3100 m from
base t. m set off $39^{\circ} 0' N$
on the flat are 22 $^{\circ}$ 18' from the
steel arc and determine a
true meridian with the
solar at the standard even
of sec 84 and 88.

Hence we run
west on S half sec 34.
Second.

- 3.00 Top of 1st red point faces S.W.
Second red point faces south.
Enter scattering cedars and pine.
12.40 Edge of cliff west and S.
descend abruptly. Leave tree.
26.30 Foot of abrupt descent.
Enter scattering cedars and
pine. Thick sage brush.
35.50 Bend in gully abs N.W.
difference between measure-
ments of 4000 ft by 1st set
of chainmen is 18 ft; so
position of middle point
by 1st set 39.91 ft.
By 2nd set 40.09 ft. The
mean of which is.
4000 set a sand stone 24 x 12 x 5 ins
18 ins. in the ground for
standard $\frac{1}{4}$ sec cor marked
S.E. $\frac{1}{4}$ on N face and raised
a mound of stone 2 ft high
 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
Hence over rolling hills
through sage brush and some
cedar.
Trail by N.W. and S.E.
Head of gulch abs N.W.

Fourth Standard Parallel South, through Range 20

Difference between measurements
of 8000 obs, by two sets of chain-
lines is 20 ftcs; position of
middle point.

By 1st set 80.10 chs.

By 2nd set 79.90 chs. The
mean of which is

- 8000 set a flint stone 18 x 10 x 8 ins
12 ins in the ground for
standard cor of sec's 33 and 34.
marked S.C. on N, with 3 grooves
on E and W faces, from
which a cedar 8" diam. lies
 $N 37^{\circ} 30' W$, 54 ftcs dist-marked
T 8° 0' S, R 20 E, S 33. B. T.

A cedar 18" diam lies

$N 44^{\circ} 30' E$ 1.44 chs dist-marked
T 20 S, R 20 E, S 34 B?

Land mountainous.

Soil rocky and sandy
3rd and 4th rate.

Timber small cedar and
pine on 63.88 chs

Undergrowth on 63.88 chs.

Mountainous land on 8000 chs.

Dec 4. 1888.

West on S side sec 33.

Through pines and cedars.

9.00 East side of main canon
200 ft-deep known as
Thompson's wash. Large trees.
Since it is impossible, on
account of precipitation breaks,
to chain further or tran-
sulate as follows.

Set a flag on line on
west side of canon, then
measure a base line
north 12.00 chs to a point

Fourth Standard Parallel South, through Range 20 E.

Whence the flag has $5.50^{\circ} 58'$ or
From the flag the N end of the
base has $N 50^{\circ} 58' E$.

Difference between measure-
ments of 12.00 chs by two sets
of chainmen is 4 chs; the
position of middle point

By 1st set 12.02 chs

By 2nd set 11.98 chs the
mean of which is 12.00 chs
which dist we use for a
base.

The required distance is
therefore tang $5.50^{\circ} 58'$ x base
or $1.233430 \times 12 = 14.80$ chs
14.80 chs added to 9.00 chs makes
23.80 chs.

23.80 West side of Thompson's canon
(Large wash and wagon road
in bottom has N and S.)
Each cedar and pine found.
Difference in measurement
of 25.20 chs by two sets of
chainmen is 10 chs; position
of middle point,

By 1st set 25.15 chs

By 2nd set 25.25 chs. the
mean of which is 25.20 chs
which added to 14.80 chs (from
gulation) makes.

40.00 Set a sand stone 16x13x4 ins
11 ins in the ground for
standard 1/4 sec cor, marked
S.C. 1/4 on N face, from
which a cedar 10" diam
has S 9° E 28 lbs dist marked
S.C. 1/4 S 33 B.T.

A cedar 14" diam has
N 25° E 47 lbs dist - marked
S.C. 1/4 S 33 B.T.
Second.

Fourth Standard Parallel South, through Range 20

55.0° Foot of ridge lies N.W. and S.E.

73.8° Top of ridge lies N.W. and S.E.
descend.

Difference in measure
of 65.2° chs by two sets of
staves is 20 chs;
of middle point.

By 1st set 65.10 chs.

By 2nd set 65.3° chs, the
mean of which is 65.2° chs
which added to 14.80 chs (true
angulation) makes

- 80.0° East side of small. chs south.
Set a sand stone 24x12x5 "
18 ins in mound of rock
(impossible to dig on
of rocks) for standard cor.
of secs 32 and 33, marked
S.S.C. on N with 4 grooves on
E and 2 grooves on W faces,
and raised a mound of
stone 2 ft base 1½ ft
high N.O. cor. Pits in -
practicable.
Land mountainous.

Soil stony and sandy.
4th rate.

Timber scrub pine and
cedar on 65.2° chs.

Mountainous land on 80.0°

Sec. 5, 1898; At 104.00 m.l.m.t.
we set off 39° 0' in N on the
lat. arc 22° 25' on the decl.
are and determine a true
meridian with the solar
the standard cor of secs
32 and 33.

Thence we run

west on Sibley sec 32.

North Standard Parallel South, Through Range 20 E.

descend.

- 3.00 Bottom of gully dries south ascend.
Top of spur slopes south descend.
~~bottom of gully dries south ascend.~~
~~spur slopes south~~
Bottom of gully dries south ascend.
Top of spur slopes south descend.
Head of gully dries south ascend.
Difference between measurements of 4.00 chs by two sets of chainmen is 18 ft; position of middle point
By 1st set 39.51 chs
By 2nd set 40.09 chs The mean of which is
Set a sand stone 18x9x7 in 1/2 ins in the ground for standard $\frac{1}{4}$ sec cor marked
S.C. $\frac{1}{4}$ on N face, and raised a mound of stone 2 ft base $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
Ascend.
4.00 Top of ridge lies N and S.
descend abruptly over ledge and slide rock.
68.73 Foot of main ridge, on second terrace.
71.80 Ledge 50 ft high lies south and north, then west. descend to shelf facing south.
Difference between measurements of 8.00 chs by two sets of chainmen is 24 ft; position of middle point
By 1st set 80.12 chs
By 2nd set 79.88 chs The mean of which is
Foot of cliff 75 ft high faces East.
Set a sand stone 18x10x8 ins 1/2 ins in mound of

Fourth Standard Parallel South, Through Range 20 E.

rock. Impossible to dig on account of rocks; for standard cor of secs 31 and 32. marked S.C. on N with 5 grooves on E and 1 groove on its face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Pits impracticable. Low, mountainous. Soil rocky. No timber.

Scattering undergrowth on 8,000 ft. Mountainous land on 8,000 ch.

	West on Sайд Sec. 31.
1.40	Ascend abruptly Top of slopes south and west distinct.
9.90	Wash dries south. Ascend.
20.00	Top of spur slopes south distinct.
25.40	Wash in bottom of main Canyon dries S.E. Ascend. difference between measurements of 30.50 chs by two sets of chainmen is 14 chs; position of middle point, By 1st set . 30.43 chs. By 2nd set 30.57 chs, the mean of which is
30.50	Foot of cliffs at foot of main mountain 1500 ft high. Set a sand stone 10x10x6 ins 12 ins in the ground for a witness cor to standard 1/4 sec cor marked W.C. S.C. 1/4 on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor.

Fourth Standard Parallel South, through Range 20 E.

Rigs impracticable
The standard 4 sec cor
falls in precipitous ledges
as does also the standard
corner of Tps 20 S Ranges
19 and 20 East.

Corners fall on east slope
of main mountain
and can not be set.
Therefore we discontinue
our survey of the fourth
standard parallel through
range 20 East at this
point.

40.00

~~High corfalls in precipitous ledges is not good
Land mountainous.~~

Soil rocky. 40% rock.
No timber.

Mountainous land over
40.00 chs.

See 5-1848

General Description.

Through ranges 21 and 20
East the line runs over
the points of the so called
Book Cliffs, which rise
abruptly from the general
level of the country to the
south. A portion of
the line also passes over
the points of the second
terrace of cliffs which rises
abruptly from the first.
The lower mesa is covered
with scrub cedar and
pine and during the
winter season good graz-
ing may be found on
the flat tops of the benches.
Numerous coal veins are
visible in the main
divide which runs

Fourth Standard Parallel South, through Range 20 E.

parallel with and to the north
of the 4th Standard Parallel
South.

In secs 35 and 36 T 20 S or 20 E
coal cropping are very
along the line.

The land to the north consists
of very broken and precipitous
mountains.

Alfred B Lewis.
David A Blossom.
U.S. Surveyors.

No officer authorized to ad-
minister oaths, other than
myself, being available without
great inconvenience, delay,
and expense, I administer
the preliminary and final oaths.

David A Blossom.
U.S. Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of Fourth Standard Parallel South through ranges 21 and 20 east, showing the respective capacities in which they acted:

A H Rock and G Mortenson, Chainman.

H C Mortier and C Andersen, Chainman.

C Andersen, Moundman.

H C Mortier, Moundman.

P A Gorley, Axman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blossom, United States Deputy Surveyors, in surveying all those parts or portions of the Fourth standard parallel south through ranges 21 and 20 east,

of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

A H Rock H C Mortier, Chainman.

G Mortenson C Andersen, Chainman.

C Andersen, Moundman.

H C Mortier, Moundman.

P A Gorley, Axman.

, Flagman.

Subscribed and sworn to before me this 5th

day of December, 1898 }



David H Blossom
U.S. Dep Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this day of, 189 }
.....



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

OCTOBER 31, 1897

Salt Lake City, Utah, October 31st, 1897

The foregoing field notes of the survey of ~~the~~ Standard Parallel South
through Range 20th East of the Salt Lake Meridian
Montaine, Utah.

executed by Alfred P. Lewis and David H. Blossom
under his contract No 219, dated December 10th, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Jacob B. Blair
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____
has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-255

FIELD NOTES

OF THE SURVEY OF THE

X-13.

East and South Blks
of

T 21 S R 20 East,

of the Salt Lake Base and Meridian,
State of Utah.

AS SURVEYED BY

Alfred B. Lewis and David H. Brown, United States Deputy Surveyors

Under their Contract No. 219, dated November 12th, 1897

Survey commenced December 6th, 1898

Survey completed December 9th, 1898

-10-

Distance between stations (height)	2-02-75	v
" " "	1-00-00	v
" S. Party (height)	14-05-34	v
" " "	1-72-20	v

A-255

119-

(530)

Recovery

E. Bathy -

height 6' 0" m. sh. 100. m. dist. 100.
1-00-00 ✓ 1-00-00 ✓
1-00-00 ✓
2-75 ✓

Recovery
E. Bathy -

height 6' 0" m. sh. 100. m. dist. 100.
79-80 ✓ 1-00-00 ✓
6-80 ✓ 72-70 ✓
1-00-00 ✓ 1-00-00 ✓
1-00-00 ✓
4-06-60 ✓ 1-75-20 ✓

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Resurvey of the East body of T 21 S R 20 E.

Resurvey commenced Dec 6-1888,
and executed with a N. and d. E.
Gurley light mountain transit
with solar attachment for
a description of which see
book, 'A'

At 8⁴⁰ a.m. L.M.T. we
set off $38^{\circ} 58' N$ on the latitude
 $22^{\circ} 28' S$ on the declination
check the solar apparatus on
the true meridian established
at our camp Dec 4-1888.

We find the adjustments
of the instrument to be sat-
isfactory.

Preliminary to commencing
the subdivision of this town-
ship we begin at the old
cor of secs 13, 18, 19 and 24 on
the E body of the T 21, which
is a sand stone $24 \times 3 \times 20$ mns
above ground marked and
introduced as described by
the Surveyor General, and
run south on a blank
line on the east body of sec
24. At 40.75 chs we inter-
sect old 1/4 sec cor., and at
81.36 chs we fall 21 lms east
of old corner of secs 18, 24,
25 and 30. Therefore we
continue our line south
and find the east boundary
to be defective in measure-
ment and many of the
corners have been oblit-
erated.

At 3 mi 2.75 chs intersect
E and W line at the cor.
of Tps 21 and 22 S Range
20 and 21 E which is

Resurvey of the East half of T 21 S R 20 E.

a sand stone 10 x 6 x 6 ins above ground marked and witnessed as described by the Surveyor General.

As subdivisional lines have not been closed upon either side of or mineral claims tied to the E half of T 21 S R 20 E we resurvey the same as follows.

Dre 6-18 & 8. At 2⁴.00 pm p.m.
l.m. to me set off 38° 56' N on
the lat are 22° 53' 3" on the decl
are and determine a true
meridian with the solar
at the cor of Tps 21 and 22 S
R 20 and 21 E.

Hence we run
North N.E. sec 31 and 36.
Over rolling hills.

40.00 Interest old $\frac{1}{4}$ sec cor which is
a sand stone 8 x 6 x 8 ins above
ground marked and witnessed
as described by the Surveyor-
General. We establish same
as permanent $\frac{1}{4}$ sec cor.

44.90 Large wash drs S.E.

50.00 Large wash drs S.E.

Set a cottonwood pit 3 ft long 4 sq with
marked stone 24 ins in the ground
for cor of secs 25, 30, 31 and
36 marked

T 21 S S 30 on N.E.

R 21 E S 31 on S.E.

S 36 on S.W. and

R 20 E S 25 on N.W. faces
with 5 notches on N and 1
notch on S edges; dug pits
18 x 18 x 12 ins in each sec
5 $\frac{1}{2}$ ft dirt and raise a
mount of earth 4 ft high

Resurvey of the East half of T 21 S R 20 E

2 ft high or of cor.
Land rolling and broken.
Soil sandy 3rd rate.
No timber.
Rolling and broken land on 8000 do.

- 0.48 N lat sect 25 and 30.
Fall 32 mrs. west of old cor of secs.
25, 30, 31 and 36, which is a
cottonwood post marked as
described by the Surveyor
General but lying on the
ground. We destroy all traces
of old corner.
Dinner over rolling hills
and dry washes.
- 15:17 Wash drs S.E.
- 21:65 Low knoll
- 40.00 No old $\frac{1}{4}$ sec cor can be found.
Set a flint stone $1\frac{1}{4} \times 8 \times 6$ ins
10 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on its face;
dry pits $18 \times 18 \times 12$ ins N and
S of stone 3 ft dirt and
raised a mound of earth
 $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft high to of cor.
wagon road to Grand River
bus E and W.
- 62.00 Root of low ridge bus S.E. and
N.E. ascend.
- 63.00 Top of ridge descend.
- 66.80 Wash drs S.E. ascend.
- 69.60 Low ridge bus E and W. descend.
- 73.00 Wash drs S.E.
- 75.40 Wire fence bus S.W. and N.E.
- 77.65 Center of river bank made thick 8 ins and N.E.
- 79.62 Wire fence bus S.W. and N.E.
- 80.00 Set a granite stone $1\frac{1}{4} \times 8 \times$
6 ins 10 ins in the ground
for cor of secs 19, 24, 25 and 30
marked with 4 stakes on

Resurvey of the East boundary of T21 S R20 E

N and 2 notches on S edges
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high $\frac{1}{4}$ of cor.
Ribs impracticable.
Land mountainous.
Soil sand and gravel.
2nd and 3rd rate.
No timber.
Mountainous land on 8000 ft.

1.39 N lat sec 19 and 24.
Fall 21 ft west of old cor of
secs 19, 24, 25 and 30 which is
a quarry site $12 \times 8 \times 8$ ins above
ground marked and witnessed
as described by the Surveyor
General. We destroy all traces
of old cor.

Around.

10.00 Top of low black ridge. br E and W.
descend.

29.10 Wash drs N.E.

35.00 Main wash drs East then S.E.

40.00 Set a flint stone $12 \times 10 \times 4$ ins
8 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on W face and
raised a mound of stone 2 ft
base $1\frac{1}{2}$ ft high $\frac{1}{4}$ of cor.
Ribs impracticable.

40.61 Intersect old $\frac{1}{4}$ sec cor which
is a sand stone $12 \times 8 \times 8$ ins
above ground marked and witnessed
as described by the Surveyor
General. We destroy all traces
of old cor. ascend.

50.00 Low black ridge br E and W.
descend.

66.60 Main canyon wash drs S.E.

77.35 Wash drs S.W.

80.00 Set a sand stone $12 \times 10 \times 6$ ins

Resurvey of the East side of T 21 S R 20 E

8 ins in the ground for cor
of secs 13, 15, 19 and 24 marked
with 3 notches on N and S edges
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high of cor.
Pits impracticable

Land mountainous.

Soil sand and black shale.

3rd and 4th rate.

No timber.

Mountainous land on 8000 chs.

- 2.00 N of secs 13 and 15.
Foot of black bluff faces
South. Ascend abruptly
Tip of bluff.
Intersect old cor of secs
13, 15, 19 and 24 which is
a sand stone $2\frac{1}{2} \times 3 \times 20$ ins
above ground marked and
measured as described by
the Surveyor General.
Be destroy all traces of old
cor. Del Norte Mountain land 2 P chs
Dec 6 - 1898.

For general description see
first division of T 21 S R 20 E.

Alfred B Lewis
Daniel H Blodorn
U.S. Dep Surveyors.

Resurvey of the South body of T 21 S R 20 E

Dec 7, 1888: at 9^h 00^m a.m. in
L.M.T. we set off, 38° 56' N over
the lat arc 22° 38' S on the decl
arc and determine a true
meridian with the solar at
the cor. of Tps 21 and 22 S
R 20 and 21 East heretofore
described.

Hence we run west on
a blank line on S body
T sec 36.

4.000 No old 1/4 sec cor can be found
81.45 till 28 lts south of old slate
marked T 21 S 36 and T 22 S 1
on opposite faces with 1 and
5 notches on opposite edge.
Slate was found lying on
the ground. Therefore we
continue our line west
and find the S body of the
Tf to be defective in
measurement and many
of the corners have been
obliterated or are not properly
set and witnessed. At 5 mi
79.84 obs intersect N and S
line 15 lts south of cor of
Tps 21 and 22 S Ranges 18 and
20 East which is a sandstone
20x14x12 in. above ground
firmly set marked and witnessed
as described by the Surveyor
General.

Dec 7. 1888.

As subdivisional lines have
not been closed upon either
side of or mineral claims
tied to the S body of T 21 S R
20 E we resurvey the

Resurvey of the South Poly of T 21 S R 20

same as follows.

Dec 8 1885. At 9:00 a.m.
L.M.T. we set off $38^{\circ} 56' N$
on the lat arc $22^{\circ} 44' 5$ on the
decl arc and determine a
true meridian with the solar
at the cor of Tps 21 and 22 S
R's 19 and 20 E heretofore
described.

Hence we run ortho line
 $38^{\circ} 56' E$ bet sec. 6 and 31.
Ground.

- | | |
|-------|---|
| 3.60 | Small gully obs S. W. |
| 10.00 | Enter thick brush. |
| 19.10 | West side of "Thompson's wash"
obs S. W. |
| 20.20 | East side of wash. |
| 22.00 | Leave thick brush. Ascend. |
| 37.58 | Fall 16 ft N of old $\frac{1}{4}$ sec cor
which is a sandstone 8x6x6 in.
above ground marked and witnessed
as described by the Surveyor
General. We destroy all trace
of old cor. |
| 38.74 | Telephone line from Thompson,
Springs to Moat lies N.E. and
S.W. |
| 39.84 | Throwing fractional drift in
water $\frac{1}{2}$ mile.
Set a flint stone 16x12x3 in.
11 in. in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face
and raised a mound of stone
2 ft base $\frac{1}{2}$ ft high N of cor.
Pits impracticable. |
| | Ascend |
| 50.00 | E of ridge lies N.W. and S.E. |
| | Hence along top. |
| 67.00 | Descend into broad valley. |
| 71.00 | Bottom of ridge. |
| 77.53 | Fall 27 ft N. of old cor of |

Resurvey of the South side of T21S R 20E.

secs 5, 6, 31 and 32 which is a cottonwood post 4 ft long 4" square marked as described by the Surveyor General but pits and mound of earth are not visible.
We destroy all traces of old cor.

79.84 Set a flint stone 16x8x4 ins 11 ins in the ground for cor of secs 5, 6, 31 and 32 marked with 5 notches on E and 1 notch on W faces; dug pits 18x18 x12 ins in each sec 5 $\frac{1}{2}$ ft dist and raised a mound of earth 4 ft high 2 ft high in front of cor.

Land mountainous.

Soil sandy. 2nd and 3rd rate.
No timber.

Mountainous land on 79.84 hrs.

S 89° 59' E bet secs 5 and 32.

14.19 Cutting of gap between two spurs which bear N and S

26.00 brush dries south.

27.25 wagon road from Thompson Springs to Rock less S and N.E.

28.60 Little round clay knoll 20 ft high on line.

37.55 Fall 27 hrs north of old 1/4 sec cor which is a flint stone 10x8x12 ins above ground marked and witnessed as described by the Surveyor General. We destroy all traces of old cor. Ascend.

39.45 1/2 of rock spur less N and S descend.

40.00 Set a sand stone 14x8x6 ins

Resurvey of the South bdy of T 21 S R 20 E.

10 ins in the ground for $\frac{1}{4}$ sec
are marked $\frac{1}{4}$ on N face and
raised a mound of stone 2 ft
base $1\frac{1}{2}$ ft high $\frac{1}{4}$ of cor.
Ribs impracticable.

Descend.

43.44 Bush obs S.W. ascend.
Top of bench bds N and S.
Trail bds N.E. and S.W.
Fall 38 ft N of old cor of secs
4, 5, 32 and 33 which is a
sand stone $12 \times 8 \times 6$ ins above
ground marked and witnessed
as described by the Surveyor
General. We destroy all traces
of old cor.

- 80.00 Set a sand stone $16 \times 12 \times 5$ ins
11 ins in the ground for cor
of secs 4, 5, 32 and 33 marked
with 2 notches on W and 4 notches
on E edges and raised a
mound of stone 2 ft base $1\frac{1}{2}$
ft high $\frac{1}{4}$ of cor. Ribs:
impracticable.

Land mountainous.

Soil rocky and sandy.

3rd and 4th rate.

No timber.

Mountainous land on 80.00 obs.
Dec 8, 1888.: at this cor we
set off 22-46's on the dial arc
and at 0400 m.l.m.t. observe
the sun on the meridian.
The resulting lat is $38^{\circ}5'6''$.

$38^{\circ}5'6''$ lat secs 4 and 33.

East edge of bench bds N and S
Descend.

6.80 Foot of bench. enters broad
valley sloping south.

Resurvey of the South body of T 21 S R 20

- 87.63 Fall 38 lbs N of old "4 sec cor which is a cedar post 3 ft long 3" square marked as described by the Surveyor General, but no pits and mound of earth are visible. We destroy all traces of old cor.
- 40.00 Set a flint stone 16 x 7 x 5 ins 11 ins in the ground for "4 sec cor marked 1/4 on N face dug pits - 18 x 18 x 12 ins E and W of stone 3 ft dist and raised a mound of earth 3 1/2 ft high 1 1/2 ft high N of cor.
- 67.78 Since over rolling flat. Fall 40 lbs N of old cor faces 3, 4, 33 and 34 which is a cedar post 3 ft long 4" square marked as described by the Surveyor General, but lying on the ground and no pits or mound are visible. We destroy all traces of old cor.
- 80.00 Set a cedar post 3 ft long 4" sq with marked stone 2 1/4 ins in the ground for cor of secs 3, 4, 33 and 34 marked T 21 S S 34 on N.E. R 20 E S 3 on S.E.
T 22 S S 4 on S.W. and S 33 on N.W. faces with 3 notches on E and W edges dug pits - 18 x 18 x 12 ins in each side 5 1/2 ft dist and raised a mound of earth 4 ft high 2 ft. high N of cor.
Land mountainous and rolling.
Soil sand and clay.

Resurvey of the South half of T 2 S R 20 E.

2nd and 3rd rate.

No timber.

Mountainous land on 6.80 chs.
Rolling land on 73.20 chs.

S 89° 57' E Bet secs 3 and 34.
Over rolling valley slopes
to south.

14.33 Old wagon road, b/w S.E. and N.W.
Fall 4.5-lbs North of old 1/4 sec cor
which is a cedar post 3 ft long
3" square marked as described
by the Surveyor General, but
lying on the ground and
no pits or mound are
visible. We destroy all
traces of old cor.

40.00 Set a sand stone 12x8x6 ins
8 ins in the ground for 1/4 sec
marked 1/4 on N face
cor, and raised a mound of
stone 2 ft base 1 1/2 ft high N
of cor. Pits impracticable.

78.53 Fall 5.8-lbs N of old cor of secs
2, 3, 34 and 35- which is a cedar
stake 2 ft long and 3" square
marked as described by the
Surveyor General, but lying
on the ground and no pits
or mound are visible.
We destroy all traces of old
cor.

80.00 Set a limestone 16x10x6 ins
11 ins in the ground for cor of
secs 2, 3, 34 and 35- marked
with 2 notches on E. and 4
notches on W edges and
raised a mound of stone
2 ft base 1 1/2 ft high N of
cor. Pits impracticable.
Land rolling.

Survey of the South side of T 21 S R 20

soil sand and clay.

2nd and 3rd rate.

No timber.

Polling land on 80.00 acs.

Dec 8. 1898.

S 89° 59' E Bet secs 2 and 35.

wash drs S.W. ascend.

mouth of gap between two ridges will bear N and S.

Top of ridge bet N and S. Ascend.

Bottom of gulch drs S.E. ascend.

Top of bench bet N and S.

^{Eng. edge bench} therefore no old $\frac{1}{4}$ sec cor can be found, therefore

dig a sand stone 24x16x8 ins

18 ins in mound of rock, (im possible to dig on account of rocks.) for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high 14 of cor. Pits impracticable.

Bottom of spur. ascend.

Top of ridge bet N.W. and S.E. descend.

wash drs S.E.

Leave ridge enters valley.

Same wash as last drs East.

Leave wash drs N.E.

Fall 12 lbs south of old cor of secs 1, 2, 35 and 36 which is a cedar post 3 ft long 3" square marked as described by the Surveyor General, but lying on the ground and no pits or mound are visible. We destroy all traces of old cor.

Set a shale stone 18x6x3 ins

12 ins in the ground for cor of secs 1, 2, 35 and 36, marked

- 80.00

Survey of the South bank of T 21 S R 20 E.

With 1 notch on E and 5 notches on wedge and raised a mound of stone 2 ft base, $1\frac{1}{2}$ ft high N of cor. Pits impracticable.

Land mount airons.

Soil sandy and rocky.

3rd and 4th rate.

No timber.

Mount airons land on 8.000 ch.

Dec. 9-1888. At 10⁴ 0.0^m a.m.

I am to set off $38^{\circ}56'N$.
on the lat arc $22^{\circ}50'S$ on the
decl arc and determine a
true meridian with the solar
at the cor of sec 1, 2, 3⁵ and
3⁶.

Hence we run.

$S 64^{\circ}59'E$ bet sec 1 and 3⁶.

Ascend

wash drs N.E.

Same wash drs S.E.

Same wash drs East

No old $\frac{1}{4}$ sec cor can be found.

In edge of wash. Therefore we
set a shall stone $12 \times 9 \times 4$ ins
8 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face,
dry pits $18 \times 18 \times 12$ ins E and
 $\frac{1}{2}$ of stone. 3 ft apart and rais-
ed a mound of earth $3\frac{1}{2}$ ft
base $1\frac{1}{2}$ ft high N of cor.

Leave wash drs N.E.

Main wash drs S.E.

wash at foot of black ridge
drs S. ascend.

To of black knolls N and S.
descend.

wash drs S.E. Ascend.

Resurvey of the South. bdy of T 21 S R 20 E.

63.55 Clay point faces south.
68.50 Top of low ridge lies S.E. and
N.W. divided.
8000 Intersect the cor. of Tps
21 and 22 & Ranges 20 and 21
East, heretofore described.
Land mountainous.
Soil sand and clay.
3rd and 4th rate.
No timber.
Mountainous land on 8000 ch.
Dec 9-1888.

For general description see
Subdivisions of T 21 S R 20 E.

Alfred B Lewis
David A Blossom
U.S. Day Surveyors.

No officer authorized to administer oaths other than myself,
being available without great inconvenience delay, and
expense, I administer the
final oaths.

David A Blossom
U.S. Day Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the South and East boundary's of T 23 S R 16 East and the East and South boundary's of T 21 S R 20 East of the Salt Lake Base and Meridian Utah, showing the respective capacities in which they acted:

C Anderson, Chainman.

C Anderson, Chainman.

C Anderson, Moundman.

C Anderson, Axman.

Frank A Gorley, Axman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blossom, United States Deputy Surveyor, in surveying all those parts or portions of the the south and east boundary's of T 23 S R 16 East and the East and South boundary's of T 21 S R 20 East of the Salt Lake Base and Meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

C. Anderson, Chainman.

C. Anderson, Chainman.

C. Anderson, Moundman.

C. Anderson, Axman.

Frank A Gorley, Axman.

Frank A Gorley, Flagman.

Subscribed and sworn to before me this 9th
day of December, 1898 }



David H Blossom
U.S. Dep Surveyor

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and

David H. Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of ~~the South and East boundary's of T 23 S R 16 East and the East and South boundary's of T 21 S R 20 East of the Salt Lake Base and Meridian Utah.~~ showing the respective capacities in which they acted:

..., Chainman.

..., *Chairman.*

C. Andersen, Moundman.

Moundman

C Andersen Axman

4 2022-01-22

Frank A. Gorley, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, in surveying all
those parts or portions of the the south and east boundary's
of T 23 S R 16 East and the east and south
boundary's of T 21 S R 20 East of the Salt
Lake Base and meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor

Chairman

Chairman

C. Anderson *Moundman*

Moundman

C. clandestina Arman.

Axman.

Flagman

Subscribed and sworn to before me this 9th day of December, 1893.

David A. Brissman
A.S. Dry Br. major.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfred B Lewis, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Jacobi B. Olafson, United States Surveyor General for The District of Alaska, bearing date of the 12th day of April, 1897, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for The District of Alaska, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of The Yukon River, pp 20, 22 & 23, Lat 61° 15' N E, the 4th Standard Parallel Lat 60° 21' E, the N. E. Bds 122 & R 16 E, E. Bds 123 & R 16 E, and the S. & W. Bds of, 121 & R 16 E, of the Delta Lake Base, and meridian in the Plate of Alaska, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for The District of Alaska, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Alfred B Lewis

United States Deputy Surveyor.

Subscribed by said Alfred B Lewis, and sworn to before me }
this 17th day of April, 1897 }

Charles A. Schubel

United States Commissioner for the
District of Alaska

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

189

The foregoing field notes of the survey of _____

executed by _____
under his contract No. _____, dated _____, 189 _____, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of ^{the east} ~~the south and east lots of T 22 S R 16 E, the south and east lots of T 23 S R 16 E, the east and south lots of T 21 S R 20 E and the retrace-~~ ^{re} ~~ment of the North half of T 22 S R 16 E.~~ showing the respective capacities in which they acted:

A. H. Rock, Chainman.
G. Mortenson, Chainman.
....., Moundman.
....., Moundman.
....., Axman.
....., Axman.
....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blossom, United States Deputy Surveyor, in surveying all those parts or portions of the East and south lots of T 22 S R 16 E, the south and east lots of T 23 S R 16 E, the east and south lots of T 21 S R 20 E, and the retrace- ment of the north half of T 22 S R 16 E of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

A. H. Rock, Chainman.
G. Mortenson, Chainman.
....., Moundman.
....., Moundman.
....., Axman.
....., Axman.
....., Flagman.

Subscribed and sworn to before me this 9th.
day of December, 1898 }



David H Blossom.
U.S. Deputy Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

David H. Blossom

United States Deputy Surveyor, do

I, *Jacob B. Blair*, solemnly swear that, in pursuance of a contract received from the United States Surveyor General for *The District of Columbia*, bearing date of the 12th day of *November*, 1897, I have well, faithfully, and truly, in my own

proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for *The District of Columbia*, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of *the base line and meridian, the 12th parallel south, the 16th*

20th N.E. & S.W. Ls. 22nd R.th E. - Ex S.W. Ls. 23rd R.th E. and

the E. & S. Ls. 21st R.th E.

of the *base line*

Base & meridian, in the *State* of *District*, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for *The District of Columbia*, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

David H. Blossom
United States Deputy Surveyor.

Subscribed by said *David H. Blossom*, and sworn to before me,

this 19th day of *August*, 1897

SEAL
S. Seal

Jacob B. Blair
United States Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salisbury, Md. October 31st, 1897

*re *the East & West Boundary of**
12th R.th E. of the Saluda Lake Base & Meridian, Delat

executed by *Clyde B. Davis* *and David H. Blossom*
under his contract No. Q-19, dated *November 12th*, 1897, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Jacob B. Blair
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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BOOK A-255

R. J. B.

FIELD NOTES

OF THE SURVEY OF THE

*East and West Bl's**of**Township 21 South, Range**20 East**Of the Salt Lake Base and Meridian,
State of Utah.*

AS SURVEYED BY

*Frank B. Lewis and David Morrison, United States Deputy Surveyor,
Under his Contract No. 219, dated November 12th, 1897
Survey commenced December 9th, 1898
Survey completed December 12th, 1898*

6-151

*E. B. Lewis (L. S.) 2-48-97 ✓
" " " 6-02
W. Morrison (M. S.) 1-20-00 ✓*

NAMES AND DUTIES OF ASSISTANTS.

A.H. Rock

Chairman

B. Mortenson

Chairman

C. Anderson

Recorder

C. Anderson

Armorer

P.A. Gorley

Playman

To preliminary affidavits of Rock & Mortenson see
book "D"

6-101

Volume

#

R0255

BOOK A-255

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Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We swear that we will well and faithfully execute the duties of chainmen; that we will level the
�ighways, roads, and turnpikes, and plumb the tally pins, either by sticking or dropping the same; that
we will compute the true distances to all notable objects, and the true lengths of all lines that we assist in
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

Chairman.

Chairman.

Sgt. - filed and sworn to before me this }
day of, 189 }
....., 189



WE, C Gardner and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment
of corners, according to the instructions given ^{us} to the best of ^{our} skill and ability, in the survey of
~~East and West boundary of T 21 S or 20 E of the
Salt Lake Base and McBride's Flat.~~

B. Associate

Moundmen.

Subscribed and sworn to before me this 8
day of December, 1898



Wm C. Andersen and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corner-
and other duties, according to instructions given us, to the best of our skill and ability, in the survey of
*East and West boundary of T 21 S R 20 E the
Sect. line and Meridian, etc., B the
Base Line and Meridian,*

C. conditum

J. L. Lippman

Subscribed and sworn to before me this 8th
day of September, 1898

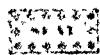


David H. Blossom

U.S. Army Surveyor.

I, Frank R. Gossley, do solemnly swear that I will well and truly perform the duties of diagram according to instructions given me, to the best of my skill and ability, in the survey of ^{East and West Boundary R 21 S R 20 E} ~~the - Salt Lake Boundary R. Franklin~~
~~etc etc~~

Subscribed and sworn to before me this 8th
day of September, 1898.



David H. Blasius,

U.S. Land Surveyor.

East Boundary of T 21 S R 30 E.

Survey commenced Dec. 9-1898
and executed with a W. and L. E.
Burley light mountain transit
with solar attachment for
a description of which see
book "A"

At 3¹/₂ 00 p.m. p.m. l.m.t. we
set off $38^{\circ} 59' N$ on the lat
arc $22^{\circ} 58' S$ on the decl arc
and test the adjustments of
the solar apparatus by a
comparison with the true
meridian established at
our camp, by Polaris ob-
servation Dec 4th 1898.

We find that the meridian
established with the solar
checks with the meridian
established by the Polaris
observation; therefore we
conclude that the adjust-
ments of the instrument are
satisfactory.

Dec. 9-1898

Dec. 10. 1898: At 9¹/₂ 00 a.m.
l.m.t. we set off $38^{\circ} 59' N$
on the lat arc $22^{\circ} 55' S$ on
the decl arc and determine
a true meridian with the
solar at the coo of secs 13, 18
19 and 24 on the E bely of
the Gf established by us
in the resurvey of the
southern three miles Dec
6-1898: See Book "M"

Thereon we run
north bet secs 13 and 18.
Foot of black clay bluff
faces south, base incl.

East Boundary of T 21 S R 20 E.

- 275° Top of bluff 50 ft high.
1740 wash obs S.E.
21.00 Foot of clay ridge be to and descend.
23.00 Top of ridge descend.
28.00 Head of gully obs N.W.
36.00 wash obs West. ascend.
40.00 North side of rock bench
front facing N.W.
Set a granite stone 14x10x6
ins 10 ins in the ground for
 $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high or 8
cu. Pits impracticable descend.
41.60 wash obs west.
51.50 Main wash obs 8 in and 8.
69.50 Bend in wash. obs S.E.
77.70 Wash obs E and S.W.
78.25 Same wash obs S.W.
79.30 Leave wash on west side.
80.00 Set a flint rock 18x10x8 ins
12 ins in the ground for
cor of secs 7, 12, 13 and 18,
marked with 4 notches on S
and 2 notches on N edges and
raised a mound of stones
2 ft base $1\frac{1}{2}$ ft high or 8
cu. Pits impracticable.
Land mountainous.
Soil sandy and rocky.
3rd and 4th rate.
1st timber.
Mountainous land on good soil.

North bet secs 7 and 12.

- 3.55° Cross main wash to east side.
5-10 Cross back to west side.
26.50 Foot of ridge. ascend.
35:40 Top of ridge bet N.W. and S.E.

East Boundary of T. 21 S. & R. E.

- Descent.
- 37.80 Cross Fork of main wash
drs S.E. Ascend west side
of knoll.
- 40.00 Set a flint stone $16 \times 14 \times 5$ ins
 11 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ in on face and
raised a mound of stone 2 ft
base $1\frac{1}{2}$ ft high to cor.
Pits impracticable.
- 42.00 Top of clay spur slopes S.E.
Ascend.
- 47.00 Top of clay ridge point. Descent.
- 64.25 Cross main wash drs S.E. Ascend.
- 73.75 Top of Point slopes West. Descent.
over shale rock.
- 75.00 Bottom of gulch drs west
ascend ~~about~~^{by} dry.
- 80.00 Top of ledge 5-0 ft high as
E and on.
- Set a hard sand stone
 $20 \times 6 \times 4$ ins 16 ins in mound
of rock (impossible to dig
on account of rocks) for cor
of secs 1, 6, 7 and 12 marked
with 1 notch on N and 5
notches on S edges and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high to
cor. Pits ~~unpracticable~~
land mountainous.
- Soil sandy and rocky.
4% rate.
- No timber.
- Mountainous land on 8000 ft.
See 10-1898: at this cor
we set off $22^{\circ} 57' 5''$ on the
decline and at 0° 00' on east.
observe the sun on the
meridians.
- The resulting lat is $39^{\circ} 0' N.$

East Boundary of T 21 S R 20 E.

	With bit sees 1 and 6. Ascend abruptly.
3.5-6	Top of first terrace or mesa 300 ft high. Enter scattering cedar and pine wash obs west. ascend.
10.00	Trail hrs E and W.
22.23	T of Z low ridge hrs E and W. descend.
26.00	T of Z low ridge hrs E and W. descend.
32.00	Foot of second terrace. Ascend abruptly. Leave trees.
38.11	T of Z spur, second terrace hrs S E N W. descend.
40.00	Top of ledge S side of Fox Canyon obs. S E. Set a sand stone 16x10x4 ins 11 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on W face and raised a mound of stone 2 ft face $1\frac{1}{2}$ ft high west Z cor.. Bits impracticable. descend abruptly.
43.50	Head of Fox Gulch hrs S E. Ascend abruptly.
48.92	T of Z ledge N side. Intersect Fourth Standard Parallel South 6.02 obs East of standard cor of Tps 20 S Ranges 20 and 21 East, heretofore described. Set a sand stone 36x12x10 ins 27 ins in mound of rock, (impossible to dig on account of rocks.) for a closing cor of Tps 21 S Ranges 20 and 21 East marked C.C. 21 S on S. 21 E on E and 20 E on W faces; with 6 grooves on S.E. and W. faces; and raised a mound of

East Boundary of T 21 S or 20 E.

stone 2 ft. base $1\frac{1}{2}$ ft high
S of cor. Bits impracticable.
Land mountainous.

Soil rocky. 40% rock.
Thicker scrub cedar and
pine on 28.44 ch.

Mountainous land on 48.82 ch.
Dec 10-1890.

For general description see
subdivisions of T 21 S or 20 E.

Alfred B Lewis,
David H. Brown
U.S. Day Surveyors.

X

West Boundary of T 21 S R 20 E.

Dec. 12-1898.- At 9:00 a.m.
I. m. t. we set off $38^{\circ}58'N$
on the lat arc $23^{\circ}05'S$ on the
dial arc and determine a
true meridian with the
solar at the old $\frac{1}{4}$ sec cor
lat sec 13 and 18 on the
west edge of the T of which
is a sand stone $10 \times 8 \times 5$ ins
above ground marked and
measured as described by
the Surveyor General.

Hence we run
North lat sec 13 and 18.
since it is impossible,
on account of ledges 300
ft high, to make accurate
measurement by use of
chain in triangulate as
follows.

From $\frac{1}{4}$ sec cor described
above we set a flag on
line on top of ledge, then
measure a base line
East 15.00 chs to a point
where the flag lies
 $N 40^{\circ}25'W$; from the flag the
East end of the base line
 $S 40^{\circ}25'E$; the required dist
is therefore, being $49^{\circ}35' \times$ base
or $1.1743 \times 15 = 17.61$ chs

17.61 T of first terrace or mesa
about 300 ft high. Enters cedar
and pine. Descend gradually
over rough rocks.

27.60 East edge of terrace. Descend
to rock shelf west side of
canyon. Hence along shelf.

- 40.00 On rock ledge shelf west
side of canyon.

Set a sand stone $18 \times 12 \times 4$ ins

West Boundary of T21 S R 20 E

12 ins in the ground for cor
7 acres 7, 12, 13 and 18 marked
with 2 notches on N and 4 notches
on S edges and raised a
mound of stone 2 ft base
1½ ft high west of cor.
Pits impracticable.
Land mountainous.
Soil rocky. 4% rate.
Timber cedar and pine on
22.39 chs.
Mountainous land on 4000 chs.

N lat sec 7 and 12.

Descend over very rough
slide rock west side of
head of canyon.

18.00 Foot of descent in head of
canyon abr S.E. Ascend
abruptly over loose rocks
and ledges.

32.00 Top of canyon N side
Ascend over rough bench.

40.00 Set a flint rock 16x11x9 ins
11 ins in the ground for 1/4 sec
cor marked 1/4 on top face
and raised a mound of stone
2 ft base 1½ ft high west of cor.
Pits impracticable.

Dec 12-1898 At this corner set off $23^{\circ}0'6''$'s
on the dial arc and at $0^{\circ}0'0''$ on
l.m.t. observe the sun on
the meridian. The resulting
lat is $39^{\circ}0'N$.

Ascend.

58.00 Foot of ledges 100 ft high
ascend abruptly.

60.45 Top of ledge bears E and W. Ascend
Top of spur slopes S.E.
descend.

West Boundary of T 21 S R 20 E.

- 68.50 South side of gully des S.E.
At foot of main mountain
1000 ft high. On account
of insurmountable ledges along
mountain side we
set a flint stone 18x12x8 ins
12 ins in the ground for a
witness cor to cor of sec
1, 6, 7 and 12. marked
W.C. on N.E. with 1 notch
on N and 5 notches on S edge
and raised on mound of
stone 2 ft base 1 $\frac{1}{2}$ ft high
west cor Pitt impracticable
~~ca falls into impassable cliff & is not set~~
Land Mount abrons.
Soil rocky. 4th rate
no timber.
Mountains land on 80.00 hrs.
On account of precipitous
ledges along side of main
mountain it is impossible
to survey further, therefore
we abandon line at this
point.

Des 12-1888.

X
No officer authorized to
administer oaths, other
than myself being available
without great inconvenience,
delay and expense, I ad
minister the final oaths.

David H. Johnson,
U.S. Ass't Sur.

West Bay T21 S 0° 20' E.

Latitudes Departures and closing errors

Line Designated	True Bearing	Dist	Latitude		Departure	
			N	S	E	W
4th Stand Parallel South	West	399.92	chs	chs	chs	chs
West Bay sec 5	S 0° 03'E	48.83		48.83	.04	
South Bay sec 6	West	40.00				40.00
In sec 7	South	40.00		40.00		
In sec 7	West	39.65				39.65
West Bay T21 S R20 E	South	360.00		360.00		
South Bay T21 S R20 E	S 89° 59'E	479.84		15	479.84	
East Bay T21 S R20 E	North	998.92	998.92			
Convergency						58
			479.82	448.98	779.88	480.15
					448.92	479.88
Error in Lat.			0.06		0.27	Error end

For general description see
Subdivisions of T21 S 0° 20' E.

Alfred B Lewis.
David H. Bloscone.
A. S. Div. Surveyors.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of East and
west boundary of T 21 S R 20 E of the Salt
Lake Base and meridian of Utah,
showing the respective capacities in which they acted:

C. Andersen, Chainman.

C. Andersen, Chainman.

C. Andersen, Moundman.

C. Andersen, Moundman.

C. Andersen, Axman.

C. Andersen, Axman.

Frank A Golley, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and
David H Blossom, United States Deputy Surveyor, in surveying all
those parts or portions of the East and west boundary of
T 21 S R 20 E

of the Salt
Lake Base and meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah.

C. Andersen, Chainman.

C. Andersen, Chainman.

C. Andersen, Moundman.

C. Andersen, Moundman.

C. Andersen, Axman.

Frank A Golley, Axman.

Frank A Golley, Flagman.

Subscribed and sworn to before me this 12th
day of December, 1898 }



David H Blossom,
U.S. Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR

在這裏，我們要指出的是：在這種情況下，我們不能說，這種對外政策是正確的。我們不能說，這種對外政策是正確的。

ପରିବାରକୁ ପରିବାରକୁ ଏହାର ଅନ୍ତରେ ଆମର ପରିବାରକୁ ଏହାର ଅନ୍ତରେ ଆମର ପରିବାରକୁ

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For example, the first sentence of the first page of the original manuscript of *Hamlet* contains the words "To be or not to be". The second sentence contains the words "That is the question". The third sentence contains the words "Whether 'tis nobler to suffer the slings and arrows of outrageous fortune or to take arms against a海王星".

卷之三十一

《海國圖志》卷之三十一 地理 十一
中華書局影印

四百九

卷之三

三

卷之三

卷之三

（本報特稿）日本政府計劃在東京灣附近建設一個大型的水下核反應堆，這將是世界首個水下核反應堆。

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藏文大藏经

漢代的賦役制度

antimony & arsenic, and it is recommended that the following arrangement
according to this direction be followed:

h momentig dient dieser Katalog, der nachdrücklich die stolze Geschichte einer sehr ausgedehnten Sammlung darstellt.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and
David A Blossom, United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of the North & East Blks
of T 20 S R 16 E, and the east and west blks of
T 21 S R 20 E.
showing the respective capacities in which they acted:

A H Rock, Chairman.
G Mortenson, Chairman.
_____, Moundman.
_____, Moundman.
_____, Axman.
_____, Axman.
_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and
David A Blossom, United States Deputy Surveyor, in surveying all
those parts or portions of the North and East blks of T 20 S
16 E and the East and west blks of
T 21 S R 20 E.

of the Salt
Lake Bearse and meridian, State of Utah, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Utah
A H Rock, Chairman.
G Mortenson, Chairman.
_____, Moundman.
_____, Moundman.
_____, Axman.
_____, Axman.
_____, Flagman.

Subscribed and sworn to before me this 12th
day of December, 1898 }



David A Blossom.
U.S. Dep Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____
of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me _____
this _____ day of _____, 189_____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah October 31st, 1897

The foregoing field notes of the survey of *the East West Boundary of*
Township 21 South Range 20 East of the Salt Lake Base
Mendocino, Utah

executed by *Clyde D. Regis & David A. Blossom*
under his contract No. *219*, dated *November 12th*, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Isaac B. Blane

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General:

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BOOK A-255

X. S. B.

FIELD NOTES

OF THE SURVEY OF THE

*Subdivisions of**Township 21 South, Range 20 East.**of the Salt Lake Base and Meridian,
State of Utah.*

AS SURVEYED BY

*Alfred B Lewis and David H Blossom, United States Deputy Surveyors
Under his Contract No. 219, dated Nov. 12th, 1897**Survey commenced December 15th, 1898**Survey completed December 30th, 1898*

6-161

<i>Feet - (high)</i>	<i>m. 0.00 ft.</i>
" low	50-69-73
" change	F-11-22 <i>58° 0.15</i>
	30-49

11-11-11

11-11-11

5791
NAMES AND DUTIES OF ASSISTANTS.

A. H. Roels

Chambers

G. Mortenson

Chambers

C. Anderson

Miner's man

C. Anderson

Armenian

Frank A. Gossley

Flagman

In preliminary off duty to see boats E & J

6-161

Volume

#

R0255

John C. St. John

580

	L	C
100.00✓	100.00✓	100.00✓
100.01✓		
100.15✓		
100.00✓		
100.00✓		
100.00✓		
100.00✓		
100.05✓		
100.00✓		
100.02✓		
48.73✓		6.10✓
30.60✓	50.00✓	
100.06✓		
100.00✓		
100.02✓		
100.00✓		
100.00✓		
100.00✓		
100.00✓		
100.00✓		
100.03✓		
48.41✓		
39.99✓	100.00✓	6.06✓
56.00✓	39.99✓	
79.95✓	34.00✓	
40.00✓	40.00✓	
100.02✓		
100.00✓		
38.80✓		
100.00✓		
79.93✓		
48.58✓		
100.00✓	100.03✓	6.00✓
100.00✓		
100.07✓		
100.06✓		
100.04✓		
100.03✓		
100.02✓		
100.00✓		
79.93✓		
48.40✓		
40.00✓	40.00✓	6.53✓
79.90✓		
79.33✓		
100.00✓		
79.87✓		
79.66✓		
32.60✓	37.40✓	
79.68✓	79.80✓	
100.00✓		
79.91✓		
79.70✓		
100.00✓		
79.94✓		
79.90.60		
48.83✓		6.10✓

~~50.7⁰.09
- 3.
50-64-73 ✓~~ 7.11.22 ✓ 30.47 ✓

BOOK A-255

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., *Chainman*

....., *Chainman*

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., *Moundman*

....., *Moundman*

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corner and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., *Axman*

....., *Axman*

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., *Flagman*

Subscribed and sworn to before me this }
day of , 189 }



Subdivisions of T 21 S or 2.0 E.

Survey commenced Dec. 15-1898
and executed with a 12' and
L. E. Gurley light mountain
transit with solar attachment
for a description of which
see book "G."

We examine the adjustments
of the transit and correct the
level and collimation errors;
then to test the solar apparatus
by comparing its indications,
resulting from solar observa-
tions made during a.m.
and p.m. hours with a
true meridian determined by
observations on Polaris we
proceed as follows.

Dec 15-1898: At the cor of sec
1, 2, 35- and 36 on the N bdy
of the township heretofore
described; the same being
in lat $38^{\circ} 56' N$, longitude
 $109^{\circ} 42' W$. we set off $38^{\circ} 56' N$
on the lat arc. $33^{\circ} 14' S$ on the
decl arc and at 4 h 00 m p.m.
l.m.t. determine with the
solar a true meridian
and mark a point thereon
on a stone firmly set in
the ground 5 chs N of the cor.

Dec 15, 1898

Dec. 16, 1898: At 1 h 37 m a.m. l.m.t.
we observe Polaris at western
elongation in accordance
with the manual of instructions
and mark a point in the
line thus determined on a
pling driven in the ground
5 chs N of our station.
At 8 h 00 m a.m. l.m.t. we lay

Subdivisions of G 201 S R 20 E.

If the azimuth of Polaris $10^{\circ} 35' 5''$ to the east and mark the true meridian thus determined by cutting a small groove in the stone set Dec. 15 on which the true meridian falls 0.3 ms east of the mark determined by the solar.

At 9th 00^m a.m. l.m.t. we set N $38^{\circ} 56' N$ on the lat arc $23^{\circ} 18' S$ on the decl arc; and mark a point in the true meridian thus determined with the solar by a cross on the stone already set 5° less N of our sta. this mark falls 0.5 ms east of the true meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians respectively about $0' 16''$ west and $0' 26''$ east of the meridian established by the Polaris observations. Therefore we conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 9th 20^m a.m. is $N 15^{\circ} 20' W$; the angle thus determined reduced by table page 100 gives the mean mag decl $15^{\circ} 18' E$

We commence at the end of secs 1, 2, 35 and 36 on the N bdy of the T.L.; here tofore described. Thence we run,
 $N 0^{\circ} 0' W$ at secs 35 and 36.

Subdivisions of T 21 S Q 20 E.

6.50	wash dries east.
19.90	wash dries east.
30.00	wash dries east.
39.00	Main wash dries east.
40.00	North side of wash.
	Set a red sand stone 14x6x5 ins 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on its face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable
44.00	Foot of ridge lies S E and N. w. ascend.
49.00	Top of ridge.
53.75	North side of ridge. descended.
55.00	Foot of ridge.
	Thence over rolling country.
58.60	wash dries east.
60.00	West foot of clay knoll.
- 80.00	South side of large wash.
	Set a flint rock 14x12x8 ins 10 ins in the ground for cor of secs 25, 26, 35 and 36 marked with 1 notch on S and E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable
	Land rough.
	Soil sandy and rocky.
	3rd and 4th rate.
	No timber.
	Mountainous land on 8000 chs.

	S 89°54'E on a random line bet secs 25 and 36
40.00	set tang $\frac{1}{4}$ sec cor.
80.01	Intersect E bdy of P 16 chs south of the cor of secs 25, 30 31 and 36 heretofore described Thence no more.

Subdivisions of T 21 S R 20 E.

- 589' 54" W on a tree line bet
secs. 25 and 36.
Low rolling country.
18.59 Wash obs south east.
5.01 Large wash obs south east.
31.81 Wash obs S.E.
40.01 Set a sand stone $14 \times 12 \times 5$ ins
10 ins in the ground for $\frac{1}{4}$ acre
cor marked $\frac{1}{4}$ on N face; dug
pits $18 \times 18 \times 12$ ins E and W
stone 3 ft apart and raised
a mound of earth $3\frac{1}{2}$ ft base
 $1\frac{1}{2}$ ft high N of cor.
44.00 Large wash obs S.E.
56.11 Enters wash obs S.E.
60.36 Large wash " "
66.71 Enters bend in same wash. obs N.E.
68.76 Large wash.
69.61 Enters same wash. Thence up
edge of wash.
- 80.01 The cor of secs 25, 26, 35 and 36.
Land rolling and broken.
Soil sand and clay
sand and 3rd rate.
No timber.
mountainous land on 80° 0' th.
Dir. 16, 1888. At this cor we
set off $23^{\circ} 20' 8''$ on the decl and
and at 0 h 0 m l.m.t. observe
the sun on the meridian.
The resulting lat is $38^{\circ} 57' N$.

No 01' W bet secs 25 and 26.

- 0.40 Large wash obs. east
18.50 Large wash obs S.E. 15 ft dep.
26.30 Wash obs obs S.E.
36.00 Wash obs S.E.
40.00 Set a sand stone $12 \times 10 \times 6$ ins
8 ins in the ground for $\frac{1}{4}$ acre
cor marked $\frac{1}{4}$ on surface

Subdivisions of T 21 S R 20 E.

- dry pits 18x18x12 ins N and S of stone 3 ft. thick and raised a mound of earth 3 $\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft high west of cor.
 61.00 Head of wash 30 ft deep abrs S.E. wagon road to Grand River abrs N.W. and S.E.
 61.60 Set an sand stone 16x8x6 ins 11 ins in the ground for cor of secs 23, 24, 25 and 26 marked with 2 notches on S and 1 notch on E edges and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high west of cor.
 Pitts impracticable.
 Land broken and rolling.
 Soil sand and clay.
 No timber.
 Broken land on 60.00 abrs.
 Note: From this cor East end of trestle to 63 $\frac{1}{2}$, R.G.R. railroad abrs N 76° or 15.60 abrs dist Post marked Vista abrs N 82° 07' W. Mill post 353 about 30 lks from east end of trestle.
-
- N 89° 54' E on a random line bet secs 24 and 25.
 40.00 set $\frac{1}{4}$ sec cor.
 40.15 Intersect E bdy of the T.L.
 14 lks N of cor of secs 19, 24, 25 and 30 here before described.
 Thence we run west on a true line bet secs 24 and 25.
 40.50 Junction of two washes. One from N one from west Both drain S.E.

Subdivisions of T 21 R 20 E.

- ascend up wash.
- 11.65 leave wash at head. ascend.
- 25.15 top of spur slopes south.
descend
- 29.90 wash dries south.
- 34.6 wash dries south East banks
west. ascend in wash,
leave wash.
- 36.15
- 40.08 set a flint stone 18x12x5 ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stones 2 ft
base, $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.
- ascend.
- 57.10 top of low ridge bns N.W. and
S.E. descend.
- 59.15 wash dries S.E.
- 66.65 wire fence bns N.W. and S.E.
- 68.85 center of R.G.W. track bns N.W. and S.
- 72.03 wire fence bns N.W. and S.E.
- 80.15 top cor of secs 23, 24, 25 and 26.
land mountainous.
Soil sand and clay.
2nd and 3rd rate.
no timber.
mountainous land over 80.15-cts.

N 0°0'W between secs 23 and 24.

- 2.80 wire fence bns S.E. and ... on
- 3.35 center of R.G.W. Ry track W.S.E.
- 4.80 wire fence bns S.E. and ... on
ascend.
- 12.00 low ridge bns N.W. and S.E.
- 38.50 wash dries S.E.
- 40.00 set a flint stone 12x12x6 ins
6 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stones 3 ft
base $1\frac{1}{2}$ ft high west of cor.

Subdivisions of T 21 S of 20 E.

	Pits impracticable.
49.50	bush obs S.E. at foot of ridge bs N.W. and S.E. ascend.
59.00	Top of ridge. descend.
63.00	Foot of ridge.
66.50	bush obs south easterly. ascend
74.00	Top of spur slopes East. descend.
- 80.00	Foot of spur.
	Set a flint stone 16 x 7 x 6 ins 11 ins in the ground for cor of secs 13, 14, 23 and 24 marked with 3 notches on S and 1 notch on E edges and raised a mound of stone 2 ft base 1 1/2 ft high w/ cor.
	Pits impracticable.
	Land mountainous.
	Soil sandy and stony.
	3rd and 4th rate.
	No timber.
	Mountainous land on 8000 ft.
	Dec. 16-1898.

	East on a random line bt secs 13 and 24.
40.00	Set tiny 1/4 sec cor.
80.10	Intersect E bdy of the T 15-16s south of cor of secs 13, 18, 19 and 24 heretofore described.
	Thence we run
	S 89° 54' W on a true line bt secs 13 and 24.
8.00	bush obs S.E. Ascend.
13.10	Top of ridge and bench bs NW and SE
	Thence over rough bench.
35.60	bush obs N.E..
40.05	Set a flint stone 16 x 4 x 8 ins 11 ins in the ground for

Subdivisions of T 21 S R 20 E.

	$\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Bits impracticable. Wash obs S.E.
48.00	Wash obs south. Ascend.
58.10	Top of rock bluff front faces South. Descend.
65.50	Main wash obs South East.
71.10	The cor. of secs 13, 14, 23 and 24.
80.10	Land mountainous. Soil rocky. 4th rate. No timber. Mountainous land on 80.10 chs.

Dec. 17-1898:- At 10th sec in
L.M.T. we set off $38^{\circ}5'8''S$ on
the lat arc $23^{\circ}21'S$ on the
decl arc and determine a true
meridian with the solar at
the cor of secs 13, 14, 23 and 24.
I hence we run.

0.50	No 0 th sec between secs 13 and 14. Small gully obs North easterly. Ascend.
6.00	Top of spur slopes S.E. Descend.
12.00	Wash obs East.
18.05	Main wash obs Southeast. Ascend.
22.25	Top of bench less N.W. and S.E.
29.50	Descend gradually.
40.00	On lower bench. Set a flint stone $18 \times 12 \times 3$ ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high to of cor. Bits impracticable.
42.00	North edge of bench less E & W. Descend.
45.20	Trail less E and W.

Subdivisions of T 21 S R 20 E.

45.50	Wash in gully obs East. ascend.
49.00	Top of ridge obs E and W. descend.
52.00	Wash obs Easterly. ascend.
65.00	Foot of first terrace and point from which we triangulate to top. In order to determine dist we set a flag on line on top of ledge 250 ft high, then measure a base line N 89° 5' E 18.00 chs to a point where the flag obs N 37° 24' W; from the flag the East end of the base obs S 37° 24' E; the required dist is therefore tang $52^{\circ} 37' \times \text{base}$ or $1.30873 \times 18 = 23.56 \text{ chs.}$
- 80.00	23.56 chs - 15.00 = 8.56 chs which is dist from cor of sec 11, 12, 13 and 14 to top of first terrace. Chain N 001° 15.00 chs from triangulation point. 65.00 chs + 15.00 chs makes an stiff slope facing S.E. Set a sand stone 14 x 12 x 8 ins 10 ins in the ground for cor of secs 11, 12, 13 and 14, marked with 4 notches on S and 1 notch on E edges and raised a mound of stone 2 ft high 1 1/2 ft high west of cor. Ridge impracticable. Land mountainous. Soil sandy and rocky. 3rd and 4th rate. No timber. mountainous land on 80.00 chs SSW 17 18 48. At 0400 m.s.t. Sky over east can not take lat observation.

Subdivisions of 921 S 92° E.

- N 89° 54'E on a random line
bet secs 12 and 13.
40.00 Set temp $\frac{1}{4}$ sec cor.
80.05 Intercept E bdy of the FF
15-lbs N of cor of secs 7, 12, 13
and 18 heretofore described.
Hence we run.
West on a true line bet.
secs 12 and 13.
1.50 Wash drs S.E. ascend.
14.00 Top of clay ridge bet N and S.
descend.
22.50 Wash drs S.E. ascend.
29.00 Top of bank east side.
32.80 West edge bank bet N and S.
descend.
36.35 Wash drains south.
0.03 Set a sand stone 16x 12x 4 in
11 in in the ground for $\frac{1}{4}$ sec
cor incarved $\frac{1}{4}$ in on N face and
raised a mound of stone 2 ft
base 1 $\frac{1}{2}$ ft high N of cor.
Site impracticable.
ascend.
50.25 Top of low clay ridge bet
N and S.
62.15 Top of clay spur slopes south.
descend.
65.00 Wash drs south. Root of first
terrace. Ascend abruptly.
80.05 The cor of secs 11, 12, 13 and 14
Lands mountainous.
Soil scanty and rocky.
3rd and 4th rate.
No timber.
mountainous land on 80.05
- N 0° 0' or bt secs 11 and 12.
Ascend abruptly.
8.56 Top of first terrace 250 ft

Subdivisions of T 21 S R 20 E.

- high, (See previous triangulation)
bds N.E. and S.W. enter cedar
and pine. Descend.
 18.00 Head of gulch bds N. Descend.
 24.00 Head of rock gulch bds N.W.
Ascend.
 28.00 Leave gulch.
 Set a sand stone 14x10x5 ins
10 ins in the ground for tree
cor marked $\frac{1}{4}$ on top face,
from which,
A cedar 10" diam bds $S 60^{\circ} 15' E$
40 lbs dist marked.
 $\frac{1}{4} S 12 B.T.$
A pine 8" diam bds $N 74^{\circ} 30' W$
35 lbs dist marked.
 $\frac{1}{4} S 11 B.T.$
 52.00 South side of head of gulch
bds west. Descend.
 59.00 Bottom of gulch. Ascend.
 65.22 Top of south side of gulch.
Thence through trees.
 70.00 South side of rock gulch.
bds S.W. Descend.
 80.00 South side of wash in
bottom of gulch.
Set a sand stone 18x12x4 ins
12 ins in the ground for tree
secs 1, 2, 11 and 12. marked
with 5 notches on S and 1 notch
on E edges; from which.
A pine 8" diam bds $S 40^{\circ} 30' E$
25 lbs dist marked;
 T 21 S R 20 E S 12 B.T.
A pine 10" diam bds $N 51^{\circ} 30' W$
54 lbs dist marked.
 T 21 S R 20 E S 2 B.T.
No other trees available
therefore we raised a
mound of stone 2 ft. high
1 1/2 ft. high & of cor.

Subdivisions of T2, S 20 E.

Pits impracticable.

Land mountainous.

Soil rocky & dry slate.

Timber low cedar and pine
on 71.44 chs.

Mountainous land on 80.00 chs.

Dec 17, 1898.

East on a random line bet
secs 1 and 12.

39.70 Top of ridge and abrupt
impossible to chain further
therefore from this point we turn
angulate as follows. Since it is
impossible to obtain base of suf-
ficient length on top of ridge we
set flag no 2 on line at foot
and leave flag no 1 at berm side
We then proceed to flag no 2 and meas
over a base line south 10.00 chs
to a point where flag no 1 lies
 $N 45^{\circ} 54' W$; from the flag, the S
end of the base lies $S 45^{\circ} 54' E$; the
required dist is therefore, tang
 $45^{\circ} 54' \times$ base or $1.0318 \frac{1}{2} \times$
 $10 = 10.32$ chs.

10.32 chs + 39.70 chs makes

50.02 chs to flag no 2 from which
we chain west 5.00 chs to foot
of steep descent.

5.00 chs - 5.00 chs, makes

45.0 set a tiny witness on $\frac{1}{2}$ sec
cor.

80.02 Intersect east bdy of T2 21 chs
south of cor of secs 1, 6, 7 and 12
heretofore described.

Hence we run:

$589^{\circ} 51' W$ on a true line bet
secs 1 and 12. Ascend
over slide rock.

Subdivisions of 921 S. 920 E.

1.50	Descent.
11.00	Bottom of canon ab s.e.
	Ascend abruptly.
21.30	Top of bluff or first terrace. West side of canon ab N and S. Ascend gradually over rough rock knoll, through cedar and pine.
35.00	Foot of steep ridge and abrupt ascent. Since $\frac{1}{4}$ sec cor will fall in precipitous slide rock and ledges and can not be set. Therefore at this point we, set a small stone $18 \times 12 \times 3$ in 12 in in mound of rock (im possible to dig on account of rocks) for a witness cor to $\frac{1}{4}$ sec cor marked w.c. $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Bits impracticable. Ascend abruptly.
40.32	Top of rock ridge ab N and S. Descent.
52.00	Foot of ridge and steep descent under trees.
73.00	Enter head of rock gulch ab s.w. descent.
- 80.02	The cor of secs 1, 2, 11 and 12. Land mountainous. Soil rocky and sandy. 3rd and 4th rate. Timber cedar and pine on 41.72 chs. Mountainous land on 80.02 chs.

Dre 18-1898 At 10⁴⁰ 00^m a.m.
Lat. in set off $39^{\circ}0'N$ on
the lat arc $23^{\circ}23'S$ on the decl
arc and determine a true
meridian with the solar

Subdivisions of T 21 S R 20 E.

the cor of secs 1, 2, 11 and 12.

Planted on road.

No 001 is on a trail line bet
secs 1 and 2. Greened.

0.30 Bottom of gulch obs 8. m.
ascend abruptly.

3.00 Top of bench. Descend grad-
ually through cedars and pine.

17.55 Bottom of rock wash in
gulch obs 8. m.

22.40 Trail obs E and N. Leave trees.

34.00 Foot of second terrace. ^{Gully obs 8. m.} Greened.

39.40 Foot of ledge 50 ft high.
Ascend abruptly.

40.00 Top of ledge. Obs N.E. and S. m.
Set a sand stone 16 x 12 x 3 ins
11 ins in the ground for 1/4 sec
or marked 1/4 on its face and
raised a mound of stone 2 ft
base 1 1/2 ft high N of cor.
Pits impracticable.

44.5 Rock point faces S. m.
Descend N.W. slope.

- 48.73 Intersect the 4th Standard
Parallel south 6.10 chs east
of standard cor of secs 3 & 4
herefore described.

Set a sand stone 16 x 12 x 6 ins
11 ins in the ground for a closing
cor of secs 1 and 2; marked
C.C. on S face with 1 groove
on E and 5 grooves on W
faces; and raised a mound
of stone 2 ft base 1 1/2 ft high
S of cor. Pits impracticable.

Land mountainous.

Soil rocky and scoured.

3rd and 4th rate.

Timber scattering pine and
cedar on 22.40 chs.

Mountainous land on 48.73 chs.

11

Subdivisions of 921 S Q 20 E.

Dec 18 1888. At this cor or set off $23^{\circ} 2' 3''$ S on the decl arc and at 0^h 00^m l.m.t. observe the sun on the meridian. The resulting lat of the Fourth Standard Parallel south is $38^{\circ} 0' 2''$ N.

Dec 18 1888. At 3^h 00^m p.m. l.m.t. we set off $38^{\circ} 5' 6''$ N on the lat arc; $23^{\circ} 2' 3''$ S on the decl arc and determine a true meridian with the solar at the eoe of secs 2, 3, 34, and 35 - on the S slope of the P. K. heretofore described.

Hence we run,

X 0^o 0' 0" W lat secs 34 and 35 over rolling hills.

8.00	Gully drs south west.
19.00	Wash at west end of knoll drs west.
40.00	Set a sand stone 12 x 12 x 4 ins 8 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ m to base and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high to of cor. Pitt impracticable.
47.40	Wash drs S. w.
50.00	Foot of spur point slopes S. w. Ascend.
51.30	Top of point, thence along w slope. Ascend.
61.75	Top of ridge bns S.E. and N.W.
64.00	N side of ridge descend.
77.00	Wash drs East.
80.00	In head of gully drs North easterly.
50	Set a flint stone 16 x 10 x 4 ins

Subdivisions of 921 S 83° 20' E.

	<p>11 ins in the ground for cor of secs 26, 27, 34 and 35; marked with 1 notch on S and 2 notches on E edges and raised a mound of stone 2 ft base 1½ ft high N of cor. Pits impracticable. Land mountainous and rolling. Soil sand and clay. 2nd and 3rd rate. No timber. Rolling land on 50.00 chs. Mountainous land on 30.00</p>
40.00	<p>8 89° 59' E on a random line bt secs 26 and 35. Set true $\frac{1}{4}$ sec cor. Intersect N and S line 60 ft N of cor of secs 25, 26, 35 and 36.</p>
40.06	<p>Hence we run N 89° 56' E on a true line bt secs 26 and 35. Ascend up wash.</p>
7.00	<p>Leave wash. Heads N.E. Pass 1.00 ch N of round clay knoll 2.0 ft high.</p>
31.06	<p>Foot of spur, ascend.</p>
34.00	<p>Top of spur front slope N descend.</p>
38.06	<p>Foot of spur.</p>
40.03	<p>Set a flint stone 16x8x6 ins 11 ins in the ground for cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1½ ft high N of cor. Pits impracticable.</p>
42.00	<p>Wash obs N.E. ascend.</p>
54.05	<p>Main wash obs N.E. Ascend up sand wash N.E.</p>

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Subdivisions of T 21 S R 20 E.

- 80.06	The cor of secs 26, 27, 34 and 35: Land mountainous. Soil sandy and stone. 2nd and 3rd rate. No timber. Mountainous land on 80.06 ch. Dec 18. 1888.
2.00	T of small spur slopes east. descend.
6.70	Wash dvs East.
24.00	Foot of ridge point slopes west ascend.
26.00	T of point. descend.
30.00	Foot of point.
34.75	Wash dvs East.
40.00	Set a sand stone 16 x 12 x 4 ins 11 ins in the ground for cor marked $\frac{1}{4}$ on W face and raised on mound of stone 2 ft base 1 $\frac{1}{2}$ ft high
40.98	T of cor. Pit impracticable. from cor mile post 25 $\frac{1}{2}$ ins N 43° in 8.00 ch dist. Wire fence bis L and 1 m.
42.65	Center of P. G. & Ry track. E. W. In cut. ascend.
43.50	T of cut.
53.00	Heads of small dvs east.
60.00	T of ridge bis S.E. and N.W. descend.
62.50	Wash dvs S.E. ascend.
68.50	T of ridge S.E. and N.W. descend.
75.00	Foot of ridge.
80.00	Set a flint stone 16 x 8 x 6 ins 11 ins in the ground for cor of secs 22, 23, 26, 27, marked with 2 notches on S and E.

Subdivisions of T21 S or 20 E.

edges and raised a mound
of stone 2 ft base 1 $\frac{1}{2}$ ft high
N of cor. Pits impracticable.
Land mountainous.
Soil sand and clay.
3rd and 4th rate.
No timber.
Mountainous land on 8000

- Dec 19 - 1885. - At 9:00 a.m.
Com. t. in set of $38^{\circ}58'N$ on
the lat arc. $23^{\circ}23'S$ on the decl
arc and determine a true
meridian with the solar at
the cor of secs 23, 23, 26 and 27.
Hence we run
 $S 89^{\circ}56'E$ on a random line
bt secs 23 and 26.
Set tiny $\frac{1}{4}$ sec cor.
Intersect N and S line 12 ft
south of cor of secs 23, 24, 25 and
26.
Hence we run
 $S 89^{\circ}59'W$ on a true line bt
secs 23 and 26.
West obs south easterly.
Set a flint stone $16 \times 8 \times 4$ ins
11 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face
and raised a mound of
stone 3 ft base 1 $\frac{1}{2}$ ft high
N of cor pits impracticable.
From this cor East end of
R.R. bridge bis $867^{\circ}30'W$.
wagon road from Thompson
Springs to Grand River.
bis N.W. and S.E.
53.00 wire fence bis N.E. and S.W.
54.50 Center of R.R. or Ry track bis N.E.
and S.W.

Subdivisions of T2, S 9 20 E.

56.70	wire fence lies N.E. and S.W.
62.60	Old Rail Road grade lies S.W. and N.E.
70.00	bush dries S.E. ascend.
- 80.02	The cor of secs 22, 23, 26 and 27..
	Land mountainous. Soil sand and clay. 2nd and 3rd rate. No timber.
	Mountainous land on 80.02 cor. From this cor East end of railroad bridge lies S 65° E.

	N 0° 01' W lies secs 22 and 23. descend.
1.50	wash dries east.
10.50	major road to Grand river lies S.E. and N.W.
20.00	wash dries S.E.
30.50	old major road not used lies N.W. and S.E. Ascend gradually.
32.00	Top of gravel bench lies S.E. and N.W.
40.00	set a hard sand stone 15x6x4 in 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on top face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high
	Or of cor. Pits impracticable.
54.00	Enter hollow dries East.
57.00	center of hollow. Ascend.
65.00	Top of bench lies N and S.
- 80.02	set a sand stone 14x8x8 ins 10 ins in the ground for cor of secs 14, 15, 22 and 23; marked with 3 notches on S and 2 notches on E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor.

Subdivisions of T21 S R 20 E.

Pits impracticable.
 Land mountainous.
 Soil sandy and stony
 2nd and 3rd rate.
 No timber.
 Mountainous land on 80.00 acs.
 Sec 19. 1898. At this cor we
 set off $23^{\circ} 24' S$ on the decl
 and at 0' 00" lat. to observe
 the sun on the meridian.
 The resulting lat is $38^{\circ} 59' N.$

	$N 89^{\circ} 59' E$ on a random line but secs 14 and 23. Setting $\frac{1}{4}$ sec cor.
4.000	Intersect N and S line 23 lks N of cor of secs 13, 14, 23 and 24. There is river $N 89^{\circ} 51' W$ on a true line but secs 14 and 23. Ascend up small drs East.
8.000	Top of ridge hrs N and S. descend.
11.00	Bottom of gully hrs south. ascend.
14.00	Top of bench hrs N.W. and S.E.
35.00	West edge of bench. descend abruptly.
40.05	Foot of steep descent. Set a sand stone 12x12x4 in finis in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft high 1 $\frac{1}{2}$ ft high N of cor. Pits impracticable. descend.
53.40	Marsh drs S.W.
68.50	Main marsh drs south.
76.50	Top of bench hrs N and S
80.10	The cor of secs 14, 15, 22 and 23.

Subdivisions of 9215 or 20 E.

Land mountainous.
 Soil sandy and stony.
 3rd. and 4th rate.
 No timber.
 Mountainous land on 80.0 chs.

	$N 0^{\circ} 01' W$ bet secs 14 and 15. Along east side of bench. Gully chs S.E.
20.75	Trail hrs E and W.
28.00	Wash chs S.E.
35.00	Same wash chs S.E.
36.00	Set a flint stone $12 \times 10 \times 6$ ins 8 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on W face and raised a mound of stone 2 ft base $\frac{1}{2}$ ft high or $\frac{1}{2}$ cor. Rhs impracticable.
50.00	Foot of first terrace or mesa. Ascend abruptly 35.0 ft. Since it is impossible to chain further on account of precipitous ledges we triangulate as follows. We set a flag on line on top of ledge; then measure a base line $N 89^{\circ} 59' E$, 30.00 chs to a point whence the flag hrs $N 43^{\circ} 51' W$. From the flag the east end of the base hrs $843^{\circ} 51'E$; therefore the required dist is tang $46^{\circ} 10' \times$ base or $1.04158 \times 30 = 31.25$ chs 31.25 chs $\times 50.00$ chs $= 81.25$ chs.
80.00	Since line cor point fall in impassable cliffs and cannot be set, therefore at this point 81.25 chs we set a small stone $16 \times 12 \times 5$ ins 11 ins in mound of rock, (impossible to dig on account of rock) for a witness cor

Subdivisions of 921 S. R. 20 E.

at cor of secs 10, 11, 14 and 15; mad
in C. on N.E. face with 4
on S and 2 notches on E edges
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high west of cor.
Pits impracticable.

Land mountainous.

Soil rocky and sandy.

3rd and 4th rate.

No timber.

Mountainous land on 80.00 cts.

Dec 19 - 1098.

From the witness cor to cor of secs
10, 11, 14 and 15 described above
in run.

S 89° 5' E on a random offset
line bet secs 11 and 14.

Since it is impossible on ac-
count of abrupt cliffs to chain from
witness cor therefore we
as follows. Since a base of suf-
ficient length can not be ob-
tained on top of ledge we set flag

No 2 on random offset line
at foot of cliffs and leave flag No 1
on witness cor. We then pro-
ceed to flag No 2 and measure
a base line 50' 08" to 15.00 cts to
a point whence flag on witness
cor bears N 44° 57' W; from the flag
the south end of the base bears S 44° 57' E.
The required dist is therefore
long of $45^{\circ} 0' 6'' \times$ base or 1.0055°
 $\times 15.00 = 15.05^{\circ}$ cts.

15.05' foot of abrupt descent and
point from whence we run
S 00' E 1.25 cts. Then we
continue S 89° 5' E on a random
line bet secs 11 and 14.

Subdivisions of 921.5 of 20 E.

40.00	Setting $\frac{1}{4}$ sec cor.
80.05	Intersect N and S line 16 lbs S of cor of secs 11, 12, 13 and 14, thence or run. N $89^{\circ}5'W$ on a true line bet secs 11 and 14. ascend.
8.00	Top of steep ascent at foot of back cliff 150 ft high face S.W. descend abruptly.
18.90	Foot of steep descent. Descend over rolling hills and hollows.
35.00	Top of ridge b/w N.E. and S.W. descend.
39.00	Set a sandstone 18x10x6 ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a round of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Rit impracticable.
44.80	Main wash chs S.W. ascend.
65.00	Foot of slide rock and steep ascent to top of first terrace. From this point we offset $N 0^{\circ}1'W$ 1.25 chs then continue N $89^{\circ}5'W$.
80.05	Ascent abruptly. The witness cor of secs 10, 11, 14 and 15. Land mountainous. Soil sandy and rocky. 3rd and 4th rate. No timber. Mountainous land on 80.05 chs.

Dec 20 1898. At 10 A.M. a m
l. n. t. was set off $38^{\circ}0'N$
on the lat arc; $23^{\circ}25'5''S$ on
the dist arc and determine

Subdivisions of 921 S Q 20 E.

- a pine meridian with
the solar at the vertices are
6 in of secs 10, 11, 14 and 15
which is 1.25 the N of pine cor
point.
Distance we run,
 $N 0^{\circ} 0' 0''$ or bt secs 10 and 11.
Enters cedar and pine
descend over slate rock
on first terrace.
4000 Set a sand stone $15 \times 14 \times 5$ in
12 in in the ground for $\frac{1}{4}$
sec cor marked by on its face
from which
A pine 8" diam by $N 5^{\circ} E$
28 lbs dist marked!
14 S 11 13 T.
A pine 8" diam by $S 82^{\circ} 30' W$
5.2 lbs dist marked
14 S 10 13 T.
Gully obs N.E.
Rock Gully obs N.E.
52.00 Set a sand stone $16 \times 12 \times 7$
in 11 in in the ground
for cor of secs 2, 3, 10 and 11
marked with 5 notches on
S and 2 notches on E edges
from which,
A cedar 16" diam by $N 54^{\circ} E$
3.5 lbs dist marked.
921 S Q 20 E S 2 13 T.
A cedar 8" diam by $S 46^{\circ} 25' W$
15 lbs dist marked.
721 S Q 20 E S 10 13 T.
A pine 18" diam by $S 60^{\circ} E$
1.02 lbs dist marked.
921 S Q 20 E S 11 13 T.
No other trees of suit
able size for bearing
trees are available.

Subdivisions of T 81 S R 20 E.

Therefore we raised a mound of stone 2 ft base
 $1\frac{1}{2}$ ft high west of cor.
 Pitt impracticable.
 Land mountainous.
 Soil rocky, 4 ft rate.
 Timber cedar and pine.
 Heavily timbered land on
 good beds.
 Mountainous land on good beds.
 Dec 20 1898: At this cor
 we set off $23^{\circ} 25' S$ on the steel
 arc and at 0400 h. m. to
 observe the sun on the
 meridian; the resulting
 lat is $39^{\circ} 0' N$.

- | | |
|-------|--|
| | $38^{\circ} 58' E$ on a random
line bet secs 2 and 11. |
| 40.00 | Set true $\frac{1}{4}$ sec cor. |
| 80.03 | Intersect N and S line 15 lbs
N of cor of secs 1, 2, 11 and 12.
Hence we run
$N 89^{\circ} 52' W$ on a true line
bet secs 2 and 11.
Dressed over rough rocks. |
| 2.00 | Bottom of rock gulch abrs
S.W. ascend; |
| 8.00 | T of rock point fence S.W.
Enter cedar and pine. |
| 21.00 | East side rock gulch 200
ft deep abrs South. Dressed
abruptly. Leave trees. |
| 26.00 | Bottom of gulch. Ascend
abruptly. |
| 31.00 | West side of gulch, top;
Enter cedar and pine. |
| 40.02 | Set a sandstone $16 \times 12 \times 3$ in
11 ins in the ground for
$\frac{1}{4}$ sec cor marked $\frac{1}{4}$ |

Subdivisions of T21 S 9 R 20 E.

- on N face and raised a mound of stone 2 ft base
 $1\frac{1}{2}$ ft high N of cor.
 Pits impracticable.
 Leave scrub cedar and pine
 enter sage brush.
- 4600 Leave sage brush.
- 53.48 East side of rock gulch
 300 ft deep drs south.
 descend abruptly
- 58.00 Bottom of gulch. ascend
 abruptly.
- 64.40 Top west side.
 Enter cedar and pine
 ascend gradually.
- 78.75 Rock gulley drs N.E.
- 80.03 Top cor of secs 2, 3, 10 and 11.
 Land mountainous.
 Soil rocky. 4th rate
 Timber scrub pine and
 cedar on 37.65 acs
 dense undergrowth on 43.63 acs.
 Mountainous land on 80.03 acs
- N 0° 0' is on a tree line
 but secs 2 and 3.
 descend through cedar and
 pine.
- 20.00 Wash drs S.E. ascend.
- 28.00 Top of low ridge drs N.W. and
 S.E. descend.
- 33.00 Trail drs N.E. and S.W. bear left.
- 35.00 Wash drs East. Ascend
- 39.38 Foot of cliff 75 ft high.
 ascend abruptly.
- 39.40 Top of ledge. Ascend.
- 40.00 Set on sand stone 18 x 18 x 4 ins
 12 ins in the ground for $\frac{1}{4}$
 sec cor marked $\frac{1}{4}$ on N
 face and raised a mound
 of stone 2 ft base $1\frac{1}{2}$ ft

Subdivisions of T 21 S R 20 E.

high w of cor.
Pits impracticable.
Top of spur slope S.E.
Descent,
46.00 Head of box gulch abo east.
Cascad.
48.41 Top of ledge n of gulch.
Intersect Fourth Standard
Parallel South 6.06 chs East
of standard cor of secs
34 and 35 therefore de-
scribed.
Set a sand stone 18x12x4 ins
12 ins in the ground for
a closing cor to secs 2 and
3 walked C.C. on S face
with 2 grooves on E and
4 grooves on W faces
and raised a mound of
stone 2 ft high 1 $\frac{1}{2}$ ft
high S of cor. Pits
impracticable.
Lined mountainous.
Soil rocky and sandy.
Timber scrub cedar
and pine on 33.00 chs.
Mountainous land on 48.41 chs.
Dec 20 1888. X

From the cor of secs 3, 4, 33 and
34 on S side of the M therefore
described for run
N 0° 0' or bet secs 33 and 34.
In bottom of broad valley.
small wash abo S.E.
Old wagon road not used
by S.E. and N.W.
wash abo S.E.
Set a flint stone 14x8x5 ins
10 ins in the ground for 'yall

11.00

33.50

37.65

40.00

Architectural Survey of 1215 ft 30 ft.

	on marked & on N face; dug pits 18x18x12 ins. N and S 6 stone 3 ft dist and raised a mound of earth 3 $\frac{1}{2}$ ft high 1 $\frac{1}{2}$ ft high west of cor. wash obs. 5 m.
57.00	Small road obs. S.E.
63.00	Cross course wash obs. S.W.
67.50	Set a flint stone 14x10x4 ins 10 ins in the ground for cor of secs 27, 28, 33 and 34. marked with 1 notch on S and 3 notches on E edges; dug pits 18x18x12 ins in each see 5 $\frac{1}{2}$ ft dist and raised a mound of earth 4 ft high 2 ft high w. of cor.
80.00	Land rolling. Soil clay and sand. 2nd and 3rd rate. No timber. Rolling land on 80.00 obs.

Dec 21-1888:- At 9:00 a.m.
L.M.T. we set off $54^{\circ}57'$ N or
the lat are $2^{\circ}3'24''$ S on the
steel arc and determine a
true meridian with the value
at the cor of secs 27, 28, 33 and
34.

Then we run.

$58^{\circ}58'5$ on a random
line bet secs 27 and 34.

Set tang of $\frac{1}{4}$ sec cor.

Intersect N and S line at
the cor of secs 26, 27, 34 and 35.
Then we run $N 89^{\circ}09'5$ in
on a true line bet
secs 27 and 34.
around.

Top of low ridge bet N.E. and S.W.

Subdivisions of T 21 S R 20 E.

	descend.
5.00	Head of marsh desc S.W. ascend.
12.50	Top of point desc S.E. and N.E. slopes S.W. descend.
15.00	marsh desc S.W.
17.50	Top of point desc S.E.
22.00	Hollow desc S.W.
32.00	Low point slopes S.W. descend. on west slope.
39.99	Set a granite 18x8x4 ins 12 ins in the ground for 1/4 sec con marked "Y" on N face. dug pits 18x18x12 ins & and tr from stone 3 ft dirt and raised a mound of earth 3 1/2 ft base 1 1/2 ft high. N of con.
79.98	Thence over rolling flat. The con faces 27, 28, 33 and 34. Land mountainous and rolling.
79.99	Soil sand and clay. 2nd and 3rd rate.
	No timber.
	Rolling land on 35.59 chs. mountainous land on 38.89 chs.

No° 02 or bet secs 27 and 28.

Careful gradually.

10.00	Head of small wash desc S.W.
24.00	Foot of low hills or ridge.
	Ascend.
28.25	Top of hills W.C.E and W.
29.00	Head of wash desc N.E.
	Thence over low hills and hollows.
39.00	Foot of low ridge desc E and W.
	Ascend
40.00	Set a flint stone 16x7x4 ins 11 ins in the ground for 1/4

Subdivisions of T21 S or 20 E.

- see cor marked $\frac{1}{4}$ on W face;
dug pits $18 \times 18 \times 12$ ins N and
S of stone 3 ft dirt and
raised a mound of earth
 $3\frac{1}{2}$ ft base 1 ft high W of cor.
42.00 Top of low ridge bns E and W.
descend.
44.00 Wash drs N.W.
53.90 Main wash drs S.W. ascend
gradually.
66.50 Low ridge bns E and W.
descend.
77.00 Wash drs South East.
ascend.
80.00 Set a limestone $16 \times 6 \times 4$ ins
11 ins in the ground for cor
of secs 21, 22, 27 and 28, marked
with 2 notches on S and 3 notches
on E edges and raised a
mound of stone 2 ft base
 $1\frac{1}{2}$ ft high W of cor.
Pits impracticable
Land mountainous and
rolling.
Soil sand and clay.
2nd and 3rd rate.
No timber.
Rolling land on 24.00 chrs
mountainous land on 56.00 chrs
Sec 21, 1598^{1/2}. At this cor we
set off $23^{\circ} 25' S$ on the steel arc
and at $0^{\circ} 00' W$ mer. t.
the sun on the meridian.
The resulting lat is $38^{\circ} 58' N$.

S $89^{\circ} 59' E$ on a random line
bet secs 22 and 27.
40.00 Set tang $\frac{1}{4}$ sec cor.
79.95 Intersect N and S line 12°
N of cor of secs 22, 23, 26 and 27

Subdivisions of T. 21 S or 20 E.

	Planee on run N 88° 54' W on a true line but see 22 and 27. Post of bench. Ascend.
26.5	Top of bench bds N.W. and S.E. descend.
9.00	Top of bench bds N.W. and S.E. descend.
16.00	Bottom of hollow obs S.E. ascend.
20.5-5	Bottom of hollow obs S.E. ascend.
24.00	Top of bench. bds N.W.E.S.E.
37.70	West-edge of bench. descend. on S.W. slope.
39.98	Set a flint stone 18x8x6 in 12 in in the ground for $\frac{1}{4}$ see cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Pits unpracticable.
44.05	Wire fence bds N.W. and S.E.
45.60	Center of R.G. & Ry track bds N.W. and S.E. This point is about 12 obs S.E. of mile post $\frac{7}{2}$ 51,
47.30	Wire fence bds N.W. and S.E.
52.00	Top of low ridge bds E and N.W. ascend.
55.50	Top of ridge. descend.
63.35	Post of wash obs S.W.
76.80	Post of wash obs S.E. ascend.
79.00	Top of low ridge bds S.E. and N.W. descend.
- 79.95	The cor of secs 21, 22, 27 and 28. Land mountainous. Soil sandy and stony. 2nd and 3rd rate. No timber. Mountainous land on 79.95 sec.

N 0° 0' W lat sees 21 and 22.
descend.

1.90 Top of low ridge bds
N.W. and S.E.

Subdivisions of Twp S 9 R 20 E.

descend gradually.

8.83 marsh drs S.E.

30.00 Head of main marsh drs S.E.
ascend.

35.78 wire fence bds N.W. and S.E.

37.35 Center of R.R. or Ry tracks
bds N.W. and S.E.

38.85 wire fence bds N.W. and S.E.
Ascend.

39.00 Top of low ridge bds E and W.
descend.

40.00 small gully drs west.

Set a sand stone 14x12x4 ins
10 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ in on face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high w of cor.
Pits impracticable.
descend gradually over
rolling hills.

50.00 Junction of old and new
roads. bds E and W: N.E.
and W.

Set a sand stone 18x12x6 ins
12 ins in the ground for
cor of secs 15, 16, 21 and 22,
marked; T 21 S on N.E.
R 20 E on S.E. with 3 switches
on S and E edge and raised
a mound of stone 2 ft base
 $1\frac{1}{2}$ ft high w of cor.
Pits impracticable.

Land mountainous and
rolling.

Soil sandy and stony.

2nd and 3rd rate.

No timber.

Rolling land on 4.000 chs

Mountainous land on
40.00 chs.

Subdivisions of T 21 S of 20 E.

	589°5' E on a random line bet secs 15 and 22.
40.00	Set a mark $\frac{1}{4}$ sec cor.
80.02	Intersect N and S line 12 lbs South of cor of secs 14, 15, 22 and 23.
	Dashed or run.
	N 89°5' W on a true line bet secs 15 and 22.
7.00	West edge of bench. descend.
10.00	wash dries S. W.
12.50	wash dries south.
19.40	wash dries S.E. ascend.
22.00	Top of bench lies N and S
30.00	west side. descend.
35.00	wash dries S.E.
40.01	Set a flint stone $1\frac{1}{4} \times 8 \times 4$ ins 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. This impracticable.
	Dashed across valley.
65.00	Foot of bench lies N and S. Ascend.
70.00	Top of bench
71.00	descend west side.
74.00	Foot of bench.
- 80.02	See cor of secs 15, 16, 21 and 22. Dense mountainous. Soil sandy and clay 2nd and 3rd rate. no timber. mountainous land on 8002 chs
	Die 21, 1888.

8.50	N 0°02' W bet secs 15 and 16. wash dries S. W. Ascend.
20.65	Top of small round knoll, ascend gradually through sage brush.

Subdivisions of T 21 S 92 E.

- 40.00 Set a flint stone $16 \times 8 \times 5$ ins
11 ins in the ground for "4-scale
cor., marked $\frac{1}{4}$ on W. faces
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high W. of cor.
Pits impracticable.
Ascend gradually.
49.50 Leave sage brush. On
edge of bench bds N.E. and S.W.
Descend
59.25 West obs 5. m.
70.00 Foot of low ridge bds N.E. and S.
78.50 Top of ridge. Descend:
- 80.00 Set a hard sand stone $18 \times 12 \times 8$
12 ins in the ground for cor of
secs 9, 10, 15 and 16; marked,
with 4 notches on S and 3 notches
on E edges and raised a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
W. of cor. Pits impracticable.
Land mountainous.
Soil sandy, 3rd rate.
No timber.
Undergrowth on 28, 80 - Chs.
Mountainous land on 8000

S 88° 59' E on a random line
bet secs 10 and 15.

- 27.20 Foot of abrupt ascent to top of
second terrace 250 ft high.
Since it is impossible to chain
further we triangulate as
follows in order to determine
dist. to top of terrace we set
a flag on line on top of ledge
then measure a base line
 $30^{\circ} 01'$ or 10.00 chs to a point
where the flag hrs $N 52^{\circ} 01' E$.
From the flag the 3rd and 8 the
base bds $S 52^{\circ} 01' W$.

Subdivision of 72, & 920 E.

- The required dist is therefore
 being $52^{\circ}00' \times$ base or $12798\frac{1}{4}$
 $\times 10 = 12800$ chs.
 12800 chs + 2720 chs makes
 40.00 set long $\frac{1}{4}$ sec cor.
 78.40 At this point on account of
 abrupt ledges we offset N $0^{\circ}1'W$
 125 chs, then run $S 89^{\circ}08'E$
 on random offset line.
 79.90 Intersect N and S line 18 lks
 N of witness cor of secs 10, 11, 14
 and 15.
 Thence we run $N 89^{\circ}01'W$ on
 an offset line in sec 10
 Enter cedar and pine.
 1.50 At this point we run $S 0^{\circ}01'E$
 125 chs to a point on top of
 boat cliff bns N.E. and S.W.
 Thence we run
 $N 89^{\circ}51'W$ on a true line
 bet secs 10 and 15.
 7.50 Rock hollow drs north.
 9.75 Rock gully drs north.
 20.00 Head of rock gully drs N.
 30.00 Rock hollow drs north.
 39.95 set a sandstone $18 \times 12 \times 8$
 ins 12 ins in the ground
 for $\frac{1}{4}$ sec cor, marked
 $\frac{1}{4}$ on N face, from which
 A cedar 10" diam bns
 $N 29^{\circ}45'E$ 9 lks dist marked
 $\frac{1}{4} S 10 B.T.$
 B cedar 6" diam bns $S 3^{\circ}30'E$
 42 lks dist marked.
 $\frac{1}{4} S 15 B.T.$
 Decayed.
 Top of ledge 25-0 ft high
 bns N.W. and S.E. west edge
 of first terrace.
 Large trees decayed
 abruptly.

Subdivisions of 921 S. 920 E.

52.75	Foot of steep descent. Ghencle over rough foothills descending.
76.00	Low ridge bds N.E. and S.W.
79.90	The cor of secs 9, 10, 15 and 16. Land mountainous. Soil rocky, 40% slate. Timber pine and cedar suitable for post. Timber on 40° elevs. mountainous land on 79.80; ths. due 22-1888; at this cor or set off 23° 25' S on the decl are and at 0° 00' merid. observe the sun on the meridian. The resulting lat is 38° 00' N.

	N 0° 02' W bet secs 9 and 10. Descent.
3.60	wash dries S.W.
9.30	Foot of ridge bds N.E. and S.W. Ascend.
11.00	Top of ridge descended.
14.00	Gully dries S.W. descended.
20.00	Ridge bds N.E. and S.W. descended.
22.00	Foot of ridge.
23.50	wash dries S.W.
40.00	About 2.00 chs west of foot of steep ascent to top of mesa. Set a flint stone 16 x 6 x 4 ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on 4 face raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high 30 yds. on Ridge impracticable.
55.50	Large wash dries west.
66.00	Foot of first terrace.

Subdivisions of T21 S9 R20 E.

	Ascend abruptly. On steep west slope in shale rock. Set a sand stone $16 \times 12 \times 8$ ins 11 ins in mound of rock (im- possible to dig on account of rock) for cor of secs 3, 4, 9 and 10, marked with 5 notches on S and 3 notches on E edges and raised a mound of stone 2 ft base, $1\frac{1}{2}$ ft high on of cor. Pits impracticable. Land mountainous. Soil rocky and sandy. 3rd and 4th rate. No timber. Mountainous land or woods.
8.000	Dec. 22-1898: - At 2400 m P. M. last, we set off $39^{\circ} 0' N$ on the lat arc; $23^{\circ} 2' S$ on the decl arc and determine a true meridian with the solar at the cor of secs 3, 4, 9 and 10. Hence, we run, $S 89^{\circ} 5' E$, on a random line bet secs 3 and 10.
40.00	Set tangent $\frac{1}{4}$ sec cor.
79.95	Intersect N and S line 2500 ft South of cor of secs 2, 3, 10 and 11. Hence we run $S 89^{\circ} 5' W$ on a true line bet secs 3 and 10. Ascend.
3.00	Leave trees, enter sage brush.
30.00	Enter cedar and pine, leave sage brush.
39.98	Set a sand stone $14 \times 10 \times 6$ ins

Subdivisions of 921 S 9 30 E.

10 ins in the ground for "y
sec cor marked $\frac{1}{4}$ on N face
from which,

a pine 14" diam brs N 22° 15'
86 lvs dist marked

$\frac{1}{4}$ S 3 B.T.

a pine 12" diam brs S 58° 15'
32 lvs dist marked.

$\frac{1}{4}$ S 10 B.T.

Then through heavy timber
ascending.

76.7 Edge of ledge facing west.
descend abruptly from these
large trees.

- 79.9 Top cor of secs 3, 4, 8 and 10.
Land mountainous.
Soil rocky. 4 th rate.
Timber low pine and
cedar on 46.70 chs.

Mountainous land on 78.85 chs

N 002' W on a tree line
bet. secs 3 and 4.

3.00 Top of steep ascent on steep
west slope under ledge.
descend abruptly.

13.00 Foot of steep descent on
S side of gulch dvs S 17°.
Since it is impossible
(on account of abrupt ledges
250 ft high) to chain
furled or triangulate as
follows.

Set a flag on line on
top of ledges, then measure
a base line S 89° 58' or 100.00 chs
to a point whence the flag
brs N 58° 08' E; from the
flag the west end of the
base brs S 58° 08' W; the
required dist is therefore

Subdivisions of D.R.R. S. of 20 E.

- Tang $31^{\circ} 50'$ x base or .6208 $\frac{1}{3}$
 $\times 10 = 6.21$ chs.
 6.21 chs + 12.00 chs = 18.21 chs.
- 18.21 Top of mire in cedar and pine tree.
- 24.00 Rock gulch dries west.
- 40.00 Set a sand stone 16 x 12 x 5 ins
 11 ins in the ground for 1/4 sec
 cor marked $\frac{1}{4}$ on S face;
 from which;
 A cedar 6" diam has $545^{\circ} 15'$
 33 lbs dirt marked.
 $\frac{1}{4} S 3 B T$.
- A cedar 12" diam has $187^{\circ} 45'$
 57 lbs dirt marked
 $\frac{1}{4} S 4 B T$.
- Ascend.
- 43.00 Head of rock gulch 60 ft
 dry dries west. Ascend.
- 46.00 Top of bench in trees.
- 48.55 Intersect Fourth Standard
 Parallel South 6.00 chs east
 of standard cor of secs 33 and
 34.
- Set a sand stone 12 x 12 x 5-
 ins 8 ins in the ground
 for closing cor of secs 3 and 4
 marked C C on S face with
 3 grooves on E and W faces,
 and raised a round of
 stone 2 ft base 1 $\frac{1}{2}$ ft high
 S of cor. Bits impracticable
 no trees of suitable size
within limits for bearing
 trees.
- Land mountainous.
- Soil rocky. 4th rate.
- Timber from pine and cedar on 30, 34 obs
- Mountainous land on 48.55 chs.

Dec 23, 1898.

Subdivisions of T21 S 9 20 E.

- From the cor of secs 4, 5, 32
and 33 on S edge of the T21,
herefore described in run
 $N^{\circ} 03'$ or bet secs 32 and 33.
On east edge of bench bds
N and S.
- 20.00 Gulch drs east.
- 36.40 Head of gulley drs east
on top of bench.
- 40.00 Set a flint stone 16x9x5 inns
11 inns in the ground for cor of all
cor marked $\frac{1}{4}$ on E face;
and raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high west of cor.
Rts impracticable.
- 47.00 Head of gulch drs S.E.
- 80.00 On top of bench.
- Set a sand stone 16x18x5 inns
11 inns in the ground for cor of
secs 28, 29, 32 and 33; marked
with 1 notch on S and 4 notches
on E edges and raised a
mound of stone 3 ft base
 $1\frac{1}{2}$ ft high west of cor.
Rts impracticable.
- Land mountainous.
Soil sandy.
2nd and 3rd route.
No timber.
Mountainous land on 8000

Sec 33, 1848:— At 9 a.m. on a
l.m.t. on set of $38^{\circ} 57' N$ on
the lat arc $23^{\circ} 24' S$ on the
decl arc, and determine a true
meridian with the solar
at the cor of secs 28, 29, 32 and
33.

Then, we run
 $589^{\circ} 59' E$ on a road line

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Subdivisions of T21 S or 20 E.

	line but sees 28 and 33. Set tiny $\frac{1}{4}$ sec cor.
40.00	Intersect N and S line at the cor of sees 27, 28, 33 and 34, Hence no run.
80.03	N 89 54' is on a true line but sees 28 and 33. Dressed over rolling flat.
5.50	Main wash drains south. Bank 7 ft clay obs south.
21.10	Old wagon road east west bet S.E. and N.W.
22.95	
40.02	Set a sand stone 12 x 10 x 5 ins diam in the ground for $\frac{1}{4}$ sec cor cracked $\frac{1}{4}$ on N face; dry pits 15 x 18 x 12 ins and w of stone 3 ft dia and reinforced with a mound of earth 3 $\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft high N of cor. Dressed over rolling flat
71.00	Foot of bank bet N and S accord.
74.00	Top of bank.
80.03	The cor of sees 28, 29, 32, and 33. Laid rolling. Soil clay, gravel and sand. 2nd and 3rd rate. No tinker. Rolling laid on 80.03 elev.

	No 0' 03' is betw 28 and 29. Over bank.
8.75	Edge of bank bet N.W. and S.E. Dressed.
10.00	Hollow obs east.
12.90	Ridge point slopes east. Dressed.
15.00	Bottom of ridge.
20.00	wash obs N.E.
35.00	Foot of black point accend.

Subdivisions of T. 21 S R. 20 E.

- 39.70 Top of point slopes south.
descend gradually.
- 40.00 Set a sand stone 18x8x5 ins
12 ins in the ground for 1/2 sec
cor marked 1/4 on or base
and raised a mound of
stone 3 ft base 1 1/2 ft high
or of cor. Bits impracticable.
descend.
- 40.00 Top of bench bns N.E. and S.W.
North edge of bench. Descend.
- 63.00 Foot of bench. North side.
- 71.00 Major road from Thompson
Springs to Rovah bns N.E. and S..
- 79.55 Small gulley bns N.W.
- 80.00 Set a sand stone 18x8x6 ins
12 ins in the ground for cor
of sec. 20, 21, 28 and 29, marked
with 3 notches on 3 and 4
notches on E edges. and
a mound of stone 3 ft base
1 1/2 ft high or of cor.
Bits impracticable.
- Land mountainous
Soil sandy and stony.
2nd and 3rd rate.
No timber.
- Mountainous land on 80.00
From the above see cor
Hotel chimney at Thompson Springs
bns N 40° 35' E
- R.R. depot bns N 36° 15' E
- Post office and store bns N 39° 10' E.
- East water tank bns N 39° 28' E.
- West water tank bns N 32° 30' E.
- Sre 23 - 1898. At this cor or set
off 23° 24' on the decl are and at
0 h 0 m I am to observe the
sun on the meridian;
The resulting lat is 38° 58' N

Subdivisions of 921 S of 20 E.

589' 58" E on a random line bet
secs 21 and 28.

40.00 Set tangent $\frac{1}{4}$ sec cor

80.07 Intersect N and S line 111ks
south of cor of secs 21, 22, 27 and
28.

Hence we run,

589' 56" W on a true line, bet
secs 21 and 28.

Ascend.

7.27 Fence bds N and S.

11.07 Wash dds S.E.

20.00 Foot of bench N and S.W. Ascend.

25.00 Top of bench.

33.00 Head of gully dds S.E.

34.07 Fence bds S 80° E and N 80° W.

36.00 Head of gully dds south.
on bench.

40.04 Set a granite stone 18x8x6 ins
12 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Site impracticable.

From this cor.,

Hotel chimney at Thompson
Springs bds N 6° 14' W.

R.R. Depot bds N 9° 37' W.

Post office and store bds N 7° 49' W.

East water tanks bds N 5° W

West water tank bds N 13° 27' W.

45.32 best edge of bench bds N.E. and S.W.
descend.

51.00 Foot of bench.

wash dds N.W.

67.57 wagon road from Thompson
Springs to Wash bds N.E. and S.W.

74.60 The cor of secs 20, 21, 28 and 29,
land mountainous.

Soil sandy and stony.

2nd and 3rd rates.

- 80.07

Subdivisions of T 31 S R 20 E.

No timber

Mountainous land on 80.07 ebs.

N 0° 03' W lat sees 20 and 21.

Dread.

4.00 Wash drs S. w. Enter sage brush.

4.50 Telephone line from Thompson Springs to Moon.

5.40 Wagon road from Thompson Springs to Moon.

13.40 Thompson's wash drs S. w.
100 ft wide.

32.90 Wash drs S. w.
38.50 R.R. Pipe line lies S.W. and N.E.
40.00 Set a sand stone 14x8x6 ins
10 ins in the ground for $\frac{1}{4}$
cor marked $\frac{1}{4}$ on top face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high w. of cor.
Pits impracticable.

47.20 Wire fence lies E and W.

48.72 Center of R.R. w. Ry track lies
E and W. Cross track about
1.25 - ebs east of west end of
siding.

50.25 Wire fence lies E and W.
56.70 Wagon road from Thompson to town line E.
62.75 Wash drs S. w. Bear sage brush.
Second.

72.50 Horse ridge lies N.E. and S. w.

78.00 Top of ridge.

80.00 Set a sand stone 20x8x6 ins
15 ins in the ground for
cor of secs 16, 17, 20 and 21
marked with 3 notches on S
and 4 notches on E edges
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high w. of cor.
Pits impracticable.

Land mountainous and
rolling.

Soil sand and gravel

Subdivisions of T 21 S R 20 E.

	2nd and 3rd rate. No timber. Mountainous land or land covered with dense under- growth on 8,000 ft.
40.00	$N 89^{\circ} 56' E$ on a random line bet secs 16 and 21. Set long $\frac{1}{4}$ sec cor.
80.04	Intersect N and S line 7 ft N of cor of secs 15, 16, 21 and 22. Hence on run.
5.44	$S 89^{\circ} 32' W$ on a tree line bet secs 16 and 21. Wash dries S. W. Enters sage brush.
16.50	Gully dries south. Ascend Top of low ridge bet N and S.
23.54	Wagon road to coal mine bet S. W. and N. E.
30.30	Wash dries S. W.
33.50	Set a sand stone $12 \times 10 \times 6$ ins 8 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. This impracticable.
40.02	East side of Thompson's wash.
48.00	West side of wash dries S. W.
52.00	Very thick sage brush. Ascend.
57.80	Top of low spur slopes S. E. Ascend gradually.
69.40	Top of round knoll. Descend.
77.00	Gully dries south westerly.
80.04	The cor of secs 16, 17, 20 and 21.
	Land mountainous

Subdivisions of T 21 S R 20 E.

soil sand and clay.

2nd and 3rd rate.

No timber.

MOUNTAINOUS LAND ON 80.04 acs
Dec 23 - 1898.

N 0° 0' W bet secs 16 and 17.

Since it is impossible to chain full dist to $\frac{1}{4}$ sec cor on account of abrupt cliffs, therefore we triangulate from the cor of secs 16, 17, 20 and 21, as follows.

Set a flag on line on top of first terrace or mesa about 350 ft high; then measure a base line 88957' 45.00 chs to a point whence the flag bears N 45° 31' E; from the flag the west end of the base bears S 45° 31' in; the required dist is therefore, long $44^{\circ} 2' 6'' \times$ base or $.98041 \times 45 = 44.12$ chs.

$\frac{1}{4}$ sec cor falls in steep slide rock under cliffs and can not be set, therefore from cor of secs 16, 17, 20 and 21 we chain N 0° 0' W bet secs 16 and 17 ascend gradually over clay knolls.

20.0 Foot of black clay spur bears N.E. and 8.25° slopes 8 m. Ascend abruptly.

28.60 Top of spur and foot of steep ascent to top of first terrace.

Since it is impossible to chain further, therefore

Subdivisions of T 21 S R 20 E.

At this point we set a sand stone $12 \times 10 \times 8$ ins & ins in the ground for a witness cor to $\frac{1}{4}$ sec cor marked T.R. $\frac{1}{4}$ in in face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high west of cor. Pits impracticable.

Ascend abruptly.

44.12 Top of first terrace. (See triangulation opposite page) ledge bns N.W. and S.E.

Ents cedar and pine.

Descend over rocky bank. Rocky wash obs. northerly. Mince along wash.

74.45 Desc west obs N.W. set a sand stone $16 \times 14 \times 8$ ins 11 ins in mound of rock, (impossible to dig on account of rocks) for cor of secs 8, 9, 16 and 17; marked with 4 notches on S and E edges, from which;

A cedar 6" diam bns N 55° E 57 lbs chs dirt marked T 21 S R 20 E S 9 B.T.

A pine 10" diam bns S 11° E.

1.69 chs dirt marked,

T 21 S R 20 E S 16 B.T.

No other trees of suitable size for bearing trees are available, therefore we raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high w of cor. Pits impracticable.

Land mountainous.

Soil rocky 40% rate.

Timber low pine and cedar on 35.82 chs.

Mountainous land on good chs

Subdivisions of T 21 S R 20 E.

- N 89° 57' E on a random
line bet sees 9 and 16.
24.86 Top of ledge east side of terrace
since it is impossible
to chain further on account
of abrupt cliffs we
do as follows.
Set flag No 3 on line on
top of low ridge at foot
of cliffs; leave flag No 1
at our transit point on
top of ledge and proceed
to flag No 3, it being
impossible on account
of ledges to obtain base of
sufficient length for tri-
angulation on top of terrace;
then measure a base
line N 0° 0' W 20.00 chs to a
point where flag No 1 lies
S 42° 13' W; from the flag the
north end of the base lies
N 42° 13' E; the required dist
is therefore tang $42^{\circ} 13' \times \text{base}$
 $or .90781 \times 20 = 18.16 \text{ chs}$
 $18.16 \text{ chs} + 24.86 \text{ chs} = 43.02 \text{ chs}$.
From flag No 2 we chain
S 89° 57' W 3.02 chs.
 $43.02 - 3.02 = 40.00 \text{ chs}$
4.00 Set tang $\frac{1}{4}$ sec cor.
80.02 Intersect N and S line 12 lks
N of cor of secs 9, 10, 15, and 16
Descent on run, N 89° 57' W
on a true line bet sees
9 and 16. Descent.
8.25 Waggon road to coal mine
lies N and S.
12.10 Thompson's wash does S.
Descent.
32.00 Foot of ridge lies N and S,
descended abruptly.

Subdivisions of 7215 R 20 E.

37.00	Top of ridge brs N and S. Descent abruptly.
40.01	In hollow obs N.E. at foot of second terrace. Set a sand stone 12x12x6 ins 8 ins in ground of rock, (impossible to dig on ac- count of rocks) for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Bits impracticable descent abruptly.
55.16	Top of first terrace brs N and S with cedar and pine, three over rock bench.
- 80.02	Top cor of secs 8, 9, 16 and 17. Land mountainous. Soil rocky and sandy. 3rd and 4th rate. Timber pine and cedar on 28.84 acs. Mountainous land on 80.02 sec. Dec 24-1898:- At this cor west off $23^{\circ}2'3''$ S on the declination and at $0^{\circ}0'0''$ in l.m.t observe the sun on the meridian. The resulting lat is $39^{\circ}0'0''$ N

	N $0^{\circ}0'3''$ W lat secs 8 and 9. Ascend through pine and cedar.
1.00	Top of low ledge brs N and S. Descent.
24.00	Rock gulch. obs N.E. Ascend.
33.00	Top of ledge brs N and S. Descent.
40.00	Set a sand stone 18x12x4 ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N.

Subdivisions of T 21 S R 20 E.

	face from which, a, pine 12" diam brs N 62° 30' E 34 lbs dist marked. 1/4 S 9 13 9.
	a pine 13" diam brs N 32° 30' W 1.37 chs dist marked, 1/4 S 8 8 9.
	descend.
\$7.00	Along edge of box canon abst East. Cedar trees.
\$6.00	Top of ledge 100 ft high faces East. Head of canon, ascend.
\$1.00	Top of ledge N side of canon Enter cedar and pine.
\$4.00	Cedar cedar and pine enter sage brush.
\$1.00	Cedar sage brush enter trees.
- \$0.00	Set a sandstone 18 x 12 x 6 ins 12 ins in the ground for cor. of secs 4, 5, 8 and 9, marked with 5 notches on S and 4 notches on E edges and raised a mound of stone 2 ft base 1 1/2 ft high w/ cor. bits impracticable no bearing trees of suitable size available. Land mountainous. Soil rocky & thin.
	Pine low cedar and pine on 59.00 chs.
	Mountainous land or land covered with dense under- growth on 8000 chs.

Dec 24. 1898 - At 2:00 p.m.
I. M. T., we set off $39^{\circ} 01' N$
on the lat arc; $23^{\circ} 2' 3'' S$ on
the decl arc and determine
a true meridian with the

Subdivisions of 921.8 & 20 E.

- isolate at the cor of secs 4, 5, 8, and 9.
 Thence we run
 $589^{\circ} 5' E$ on a random
 line bet secs 4 and 9.
 Set comp $\frac{1}{4}$ sec cor.
 Top of cliff east side of terrace
 Since it is impossible to
 chain further we triangulate
 as follows.
 On account of ledges a
 base line of sufficient length
 can not be measured on top
 of terrace, therefore we set
 a flag ^{no 2} on line at foot of
 ledge and leave flag no 1
 on top of terrace at transit
 point then proceed to flag
 no 2. We measure a base
 line $80^{\circ} 0' 4''$ or 15.00 chs to
 a point whence flag no 1 bears
 $N 44^{\circ} 32' W$; from the flag the
 S end of the base bears $S 44^{\circ} 32' E$,
 the required dist is therefore
 being $44^{\circ} 32' \times$ base or $.86613$
 $\times 15 = 14.79$ chs.
 $14.79 + 51.16 = 65.95$ chs.
 which point is about 3.00 chs
 $589^{\circ} 5' E$ from foot of cliff
 ascent.
 79.95 Interest N and S line 10 chs
 S of cor of secs 3, 4, 9 and 10.
 Thence we run
 West - on a true line bet
 secs 4 and 9.
 Descend abruptly over slide
 rock.
 Foot of steep descent.
 Thompson wash dis south.
 Road to coal mine in
 bottoms of wash.

Subdivisions of T21 S or 3.0 E.

ascend.

17.00 Ascend abruptly.

28.79 Top of first terrace b.s. N and S.
Enter cedar and pine.

39.4 Set a sand stone 16x16x8 ins
11 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on N face
from which,

A pine 12" diam b.s. $N 7^{\circ} 30' E$
 $4\frac{1}{2}$ lbs dist marked;

$\frac{1}{4}$, S 4 B.T.

A pine 10" diam b.s. $S 41^{\circ} 15' E$
 $8\frac{1}{2}$ lbs dist marked,

$\frac{1}{4}$ S 9 B.T.

50.00 Rock gully dries north.

Gully dries north.

62. Wash dries north.

76.00Leave thick cedar and pine.

- 79.95 Top cor of secs 4, 5; 8 and 9.

Land mountainous.

Soil rocky 4th rate.

Timber low pine and
on 47.21 chs

Mountainous land on 79.95

$N 0^{\circ} 03' W$. on a pine line
but sees 4 and 5.

descend through scattering
cedars.

6.00 Bottom of rock gulch
dries East. Ascend.

10.00 Top north side of gulch.
Ascend gradually.

18.00 Foot of second terrace.
Leave trees. Ascend abruptly

35.2 Top of second terrace b.s.
N.E. and S. in Enter trees.

40.00 Set a sand stone 18x6x5-
ins 12 ins in the ground
for $\frac{1}{4}$ sec cor marked $\frac{3}{4}$ on

Subdivision of 9215920 E.

W face; from which,
A pine 14" diam b/s 33° E
61 lbs dist. marked

" 4 S 4 B. T.

A pine 12" diam b/s $36^{\circ} 30'$ E
5' 3 lbs dist. marked,

" 4 S 5 B. T.

Ascend.

- 42.30 Top of first ledge about
20 ft. high b/s N.W. and S.E.
Ascend. Leave trees.
- 47.50 Top of second ledge b/s
N.W. and S.E. Ascend.
- 48.40 Intersect Fourth Standard
Parallel South 6.23 chs.
East of standard cor of
secs 32 and 33 heretofore
described.
Set a sandstone 24 x. 6 x 4
in 18 in. in the ground
for a closing cor 4 secs
4 and 5 marked C.C. on
S face with 4 grooves on
E and 2 grooves on W faces
and raised a mound of
stone 2 ft base 1 $\frac{1}{2}$ ft high
S of cor. Pitt impracticable
land mountainous.
Soil rocky and sandy.
3rd and 4th rate.
Pine, low pine and
cedar on 25.06 chs.
Mountainous land on
48.40 chs.

Dec 24-1888.

From the cor of secs 5, 6, 31
and 32 on the S side of the
T.P. heretofore described
in run

Subdivisions of T 31 S 9 R 20 E.

	N 0°03' W lot sees 31 and 32. ascend gradually.
7.50	Top of low clay ridge lots E and W. descend gradually.
20.00	Foot of ridge lots E and W. ascend.
24.50	Top of ridge lots E and W. descend.
26.00	Foot of ridge N side.
30.00	wash obs west. ascend.
35.00	Top of low ridge lots E and W. descend gradually.
40.00	Set a flint stone 18x8x4 ins 12 ins in the ground for 1/2 sec con marked 1/4 on W face and raised a mound of stone 2 ft base 1 1/2 ft high W of con. bits impracticable. wash obs west. ascend.
43.90	Top of low gravel ridge lots E and W. descend.
48.00	wash obs west. descend.
54.30	wash obs west. descend. one rolling flat.
63.00	Telephone line from Thorntons Springs to Brook. lots N.E. and S.W.
74.00	Foot of low ridge lots E and W. descend.
84.00	Set a sandstone 14x6x5 ins 10 ins in the ground for con of sees 29, 30, 31 and 32. marked with 1 notch on S and 5 notches on E edges and raised a mound of stone 2 ft base 1 1/2 ft high W of con. bits impracticable. Land mountainous and rolling. Soil sand and gravel. 2nd and 3rd rate.
	No timber.
	Rolling land on 40.00 hrs. mountainous land on 40.00 hrs.

Subdivisions of 921 S. & 20 E.

- Dre 26-1888. At 9:00 a.m. line, t. we set off $38^{\circ}57'N$ on the lat arc. $23^{\circ}18'S$ on the decl arc. and determine a true meridian with the solar at the cor of secos 29, 30, 31 and 32. Distance we run.
 $S 88^{\circ}58'E$ on a random line bet secos 28 and 32.
- 40.00 Set temp $\frac{1}{4}$ sec cor.
 79.90 Intersect N and S line at the cor of secos 28, 29, 32 and 33.
 Distance we run.
 $N 88^{\circ}58'E$ on a true line bet secos 28 and 32.
 Descend.
- 9.85 wagon road from Thompson Springs to brook bet N.W. and S.E.
 24.20 Edge of hollow descended.
 26.30 Wash in bottom of hollow ab.s south
 28.00 Wash in bottom of hollow ab.s south descended.
 30.00 Top of ridge bet N and S.
 descended.
 35.00 Head of gully ab.s S.W.
 38.00 Wash edge of wash ab.s S.W. and N.E.
 descended.
 39.95 Set a flint stone $16 \times 12 \times 3$ ins
 11 ins in the ground for $\frac{1}{4}$ sec
 cor marked $\frac{1}{4}$ on N face and
 raised a mound of stone
 3 ft base $1\frac{1}{2}$ ft high N of cor.
 Bits impracticable.
 descended.
 43.00 Wash ab.s S.W. descended.
 Top of low black ridge
 bet N.E. and S.W. descended.
 over rolling hills.
 Telephone line from Thompson Springs to brook bet N.E. & S.W.

Subdivisions of T 21 S & R 20 E.

- | | |
|--------|---|
| 70.00 | In hollow slopes to 5. m.
Ascend gradually. |
| - 9.90 | The cor of secs 29, 30, 31 and 32.
Land mountainous.
Soil sandy and stony.
2nd and 3rd rate.
No timber.
Mountainous land on 79.90 |
| |
 |
| 40.00 | N 88° 5' N on a random line
bet secs 30 and 31.
set temp $\frac{1}{4}$ sec cor. |
| 79.53 | Intersect west bdy of T 21 20th
South of cor of secs 25, 30, 31
and 36 which is a sandstone
12 x 6 x 8 ins above ground
marked and witnessed as
described by the Surveyor
General. |
| | Then we run
S 89° 51' E on a true line
bet secs 30 and 31.
Through sage brush. |
| 14.13 | wash obs 3. m. |
| 39.53 | set a sand stone 12 x 10 x 8 ins
8 ins in the ground for
$\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N
face ; dug pits 18 x 18 x 12
ins E and W of stone 3 ft
dirt and raised a mound
of earth 3 $\frac{1}{2}$ ft base 1 $\frac{1}{2}$ ft
high N of cor. |
| 46.03 | wash 20 ft due obs south |
| 59.53 | wagon road from Thompson
Springs to Wash bis N.E. and
S.W. Leave heavy sage
brush. |
| 72.50 | Thompson's wash obs south.
ascend. |

Subdivisions of T 21 S R 20 E.

79.53 The cor. of secs 29, 30, 31 and 32.
Land mountainous and
rolling.
Soil sandy.
2nd and 3rd rate.
No timber.
Mountainous land or land
covered with dense under-
growth on 79.53 ebs.
See 26 1898: At this cor.
we set off $23^{\circ}20' S$ on the
decline and at 0100 m
l.m.t. observe the sun on
the meridian. The resulting
lat is $38^{\circ}57' N$.

$N^{\circ}0'03''$ lat sees. 29 and 30.
Ascend
0.50 Top of low ridge bes E and W.
Descend.
10.00 Thompson's wash obs S.W.
Ascend.
14.00 Top of low bench bes N.E. and
S.W.
17.60 wagon road from Thompson's
springs to wash bes
N.E. and S.W.
Entire sage brush.
40.00 Set a sand stone $14 \times 8 \times 6$ ins
10 ins in the ground for
 $\frac{1}{4}$ sec cor. marked $\frac{1}{4}$ on
one face; dug pits $18 \times 18 \times 12$
ins N and S of stone 3 ft apart
and raised a mound of earth
 $3\frac{1}{2}$ ft high $1\frac{1}{2}$ ft high & of
cor.
Thence on rolling land
through sage brush.
wash obs S.W.
Set a granite stone $14 \times 8 \times 8$ ins

Subdivisions of T 21 S R 20 E.

10 ins in the ground for cor
of secs 19, 29, 28 and 30. west
with 2 notches on S and 3 notches
on E edges; dug pits 18x18x1
ins in each sec 5 $\frac{1}{2}$ ft deep
and raised a mound of earth
4 ft base 2 ft high w of cor.
land mountainous and
rolling.

Soil sandy and clay.

2nd and 3rd rate.

No timber.

Mountainous land or land
covered with dense scrub.
growth over 8000 chs.

- S 89° 59' E on a random
line bet secs 20 and 29.
40.00 set trap $\frac{1}{4}$ sec cor.
79.87 intersect N and S line & lbs
N of cor of secs 20, 21, 28 and 29.
There is no road.
N 89° 56' E on a true line bet
secs 20 and 29.
4.83 Telephone line from Thompson
Springs to brook hrs N.E. and S.E.
7.22 wash hrs south westerly.
9.27 wagon road from Thompson
Springs to brook hrs N.E. and S.E.
11.17 Thompson's wash hrs S.E.
Ends sage brush.
29.87 trail hrs N.W. and S.E.
38.94 set a sand stone 12x12x4-in
8 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ in N base and
raised a mound of stone 2 ft
base. 1 $\frac{1}{2}$ ft high N of cor.
Pits impracticable.
45.4 wash hrs south westerly.
50.37 wash hrs south.

Subdivisions of T. 21 S R 20 E.

63.02	wash obs south west.
74.75	wash obs south.
79.67	The cor of secs 18, 20, 28 and 30 Land mountainous and rolling Soil sand and clay, sand and shale rate. no timber. mountainous land or land covered with dense undergrowth on 7.9.87 obs.
40.00	$N 89^{\circ} 51' W$ on a random line bt secs 19 and 30. set tiny $\frac{1}{4}$ sec cor.
79.60	Intersect w body of the P.P. 10 miles N of cor of secs 18, 24, 25 and 30 which is a sandstone $18 \times 8 \times 12$ ins above ground marked and witnessed as described by the Surveyor General. Thence we run $S 89^{\circ} 56' E$ on a true line bt secs 18 and 30. Through thick sage brush. over rolling flat.
39.60	Set a granite stone $12 \times 10 \times 8$ ins 8 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high N of cor. Pits impracticable. Ran east gradually.
49.75	Cross R. G. to pipe line bt N.E. and S.W.
71.10	wash obs south westerly.
79.60	The cor of secs 18, 20, 28 and 30. Land mountainous and rolling Soil sand and clay.

Subdivisions of 9215 Q 20 E.

2nd and 3rd rate.

No timber.

MOUNTAINOUS land or land covered with dense undergrowth on 79.60 acres.

N 0° 03' or lot sees 18 and 20.

Through sage brush.

10.50 Cross R.G. & Pipe line b/s N.E. end.

22.60 wire fence b/s N.E. and S.W. fence

24.35 Center of R.G. & Ry track b/s N.E. and S.W.

26.10 wire fence b/s N.E. and S.W.

37.00 wagon road from Thompson Springs to Green River b/s land

40.00 set a sand stone 16x10x6 ins
11 ins in the ground for 1/4 sec
con marked 1/4 on W face and
raised a mound of stone
2 ft base 1 1/2 ft high w of
con. Bits impracticable.
descend gradually.

74.5 Foot of low ridge b/s N.E.
and S.W.

78.00 Top of ridge descend.

80.00 set a sand stone 16x12x10ins
11 ins in the ground for con
of sees 17, 18, 19 and 20 marked
with 3 notches on S and 5 notches
on E edges and raised a
mound of stone 2 ft base
1 1/2 ft high w of con.
Bits impracticable.

Land rolling.

Soil sand and clay.

2nd and 3rd rate.

No timber.

Dense under growth on
22.60 acres.

Rolling land on 80.00 acres
Dec 26 - 1898.

Subdivisions of T 21 S R 20 E.

	S 89° 56' E on a random line bet secs 17 and 20 Set tang $\frac{1}{4}$ sec cor. Intersect N and S line at the cor of secs 16, 17, 20 and 21. Thence we run N 89° 56' W on a true line bet secs 17 and 20. Ascend.
40.00	Small marsh obs S. w.
79.80	Wash obs S. w.
5.00	Marsh obs S. w.
10.10	Marsh obs S. w.
22.60	Marsh obs S. w.
29.60	Marsh obs south.
35.75	Marsh obs south east.
39.60	Marsh obs south.
39.90	Set a sandstone 12x8x8 ins 8 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 2 ft base 1 $\frac{1}{2}$ ft high N of cor. Pits - impracticable.
45.00	Large marsh obs south. and S. w.
63.50	Main wash 1 ch mile obs S. w. Ascend.
78.00	Top of low ridge obs N.E. and S. w. Descend.
79.80	The cor of secs 17, 18, 19 and 20. Land rolling. Soil sand and clay. 2nd and 3rd rate No timber. Rolling land on 79.80 obs.

	N 89° 56' W on a random line bet secs 18 and 19. Set tang $\frac{1}{4}$ sec cor.
40.00	Intersect N side of top of 50 ft N of the cor of secs 13, 18, 19 and 24 which is a sandstone 18x12x12 ins above ground.
79.68	

Subdivisions of T 21 S R 20 E.

marked and witnessed as described by the Surveyor General.

Distance or run 588' 5-8" on a true line bet secs 18 and 19. Ascend.

- 0.18 Top of low ridge bet N.E. and S. Descend.
- 4.18 Wash drs south
- 5.43 small wash drs S.
- 25.48 Large wash drs S. w. Ascend.
- 39.68 Set a granite stone 14x12x6 in 10 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face and raised a mound of stone 3 ft base 1 $\frac{1}{2}$ ft high N of cor. Bits impracticable. Ascend.
- 45.68 Top of low ridge bet N.E. and S.W. descend
- 54.65 Wash drs south. Ascend.
- 60.00 Top of ridge bet N and S. descend.
- 70.83 Wash drs south.
- 73.28 Wash drs S. w. Ascend.
- 79.68 The cor of secs 17, 18, 19 and 20. Land mountainous. Soil sand and clay. 2nd and 3rd rate. No timber. Mountainous land on 79.68 chs.

Dec. 27-1898; At 10h 00m a.m.
I. M. T. we set off 38° 57' N on
the lat arc 23° 17' S on the
decl arc and determine a
true meridian with the
solar at the cor of secs
17, 18, 19 and 20.
Distance or run.

Subdivisions of T 21 S R 20 E.

	N $0^{\circ}03'$ or lat sees 17, and 18. descend.
8.50	small marsh chs S.W. Plane over rolling hills.
23.50	marsh chs S.E.
33.00	Foot of ridge bns N.E. and S.W. ascend.
38.30	Top of ridge bns N.E. and S.W. descend.
40.00	Set a flint stone 18x12x8 ins 12 ins in the ground for "y see cor marked "4 on W face and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high W of cor. Rts impracticable. descend.
42.00	Foot of ridge. descend gradually.
65.00	Bottom of broad hollow slopes S.E. ascend gradually.
- 80.00	Set a sand stone 16x16x4 ins 11 ins in the ground for cor of sees 7, 8, 17, and 18 marked with 4 notches on S and 5 notches on E edges and raised a mound of stone 2 ft base $1\frac{1}{2}$ ft high W of cor. Rts impracticable. Land mountainous. soil sandy and stony. bad and 3rd rate. no timber. mountainous land on 8000 chs.
	Dec 27-1898:- at this cor we set off $23^{\circ}17'$'s on the decline and at 0°00' on L.M.T. observe the sun on the meridian. The resulting lat is $39^{\circ}00'N.$

Subdivisions of 9215 R 20 E.

- 589°56'E on a random line, bet secs 8 and 17.
- 13.00 In broken foot hills at foot of first terrace. Since it is impossible to chain to top on account of abrupt cliffs 3.00 ft high, therefore from this point we triangulate as follows.
 We set a flag on line on top of ledge. Then measure a base line $3^{\circ}0'04''$ or 20.00 chs to a point whence the flag bears $N\ 44^{\circ}27'E$; from the flag the south end of the base line bears $S\ 44^{\circ}27'W$; the required dist is therefore long $44^{\circ}27' \times$ base or $.9787 \times 20 = 19.57$ chs.
 19.57 chs + 12.00 chs makes
 31.57 Top of second terrace.
- 40.00 Set line $\frac{1}{4}$ sec cor.
- 79.91 Intersect N and S line 4 lks south of cor of secs 8, 9, 16, and 17.
 Hence we run,
 $N\ 89^{\circ}58'W$ on a true line bet secs 8 and 17,
 Through thick cedar and pine. Discreet.
- 1.40 Rock gully drs N around gradually.
- 30.00 Top of low ledge bears N and S.
- 39.96 Set a sand stone $18 \times 10 \times 4$ ins 12 ins in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ on N face; from which:
 A pine 6" diam bears $N\ 52^{\circ}E$
 54 lks dist marked.
 $\frac{1}{4}$ S & B.T.
 A pine 7" diam bears $S\ 17^{\circ}15'W$
 50 lks dist marked.

Subdivisions of 92, S.R. 20 E.

	1/4 S 17 B.T.
48.34	Descend through cedar. Top of terrace west side. Ledge hrs N and S. Descend abruptly leave tree.
67.91	In foot hills at foot of terrace. Descent gradually.
77.00	Main wash drs S.E. Ascend.
79.91	Top cor of secs. 7, 8, 17 and 18. Land mountainous. Soil sandy and rocky. 3rd and 4th rate. Dinher low pine and cedar on 48.34 chrs. Mountainous land on 79.91 chrs.

	N 89° 58' is on a random line bet secs 7 and 18.
8.00	Foot of first terrace 250 ft high. Impossible to chain further on account of ledges therefore from this point on triangulate as follows. Set a flag on line on top of ledge then measure a base line N 0° 0' E 2000 chs to a point whence the flag hrs S 44° 05' W; from the flag the N end of the base hrs N 44° 05' E; the required dist is therefore. tang 44° 05' x base or .96738 x 20 = 19.35 chs. 19.35 chs + 800 chs makes to top of first terrace. set tang 1/4 sec cor. west edge of terrace, from whence cor of secs 7, 12, 13 and 18 on west body of T.P. is visible and on line that runs along line intersects west body of
27.35	
40.00	
43.50	

Subdivisions of T21 S 920 E.

Tp at the cor of secs 7, 12, 13
and 18, heretofore described.

Since it is impossible to
chain across canon we
determine dist as follows.

Set a flag on line on
top of ledge 1.76 chs N 89° 58'
of cor of secs 7, 12, 13 and 18.
Then measure on back
line N 22° 23' 43.25 chs to a point
where the flag lies. S 28° 15' W:
from the flag the N end of the
base lies N 28° 15' E; therefore the
angles taken in order of their
measurement are respectively
67° 38', 50° 40' and 61° 47' their
sum being 180° and we
compute the dist as follows.

$$\log \sin 50^{\circ} 40' = 9.888444 \checkmark$$

$$\log 43.25 = \underline{1.635986}$$

$$11.524430 \checkmark$$

$$\log \sin 61^{\circ} 47' = \underline{9.945058} \checkmark$$

$$\log \text{ required dist} = 1.579372 \checkmark$$

Therefore required dist is
37.96 chs.

$$37.96 \text{ chs} + 43.50 \text{ chs} = 81.46 \text{ chs}$$

$$81.46 \text{ chs} - 1.76 \text{ chs} = 79.70 \text{ chs.}$$

79.70 Intersect the west bdy of the
Tp at the cor of secs 7, 12, 13
and 18 heretofore described.
Since we run

S 89° 58' E on a true line
bet secs 7 and 18.

Descent abruptly.

13.00 Bottom of canon obs S.E.
Ascend abruptly.

36.21 Tp of first terrace. Ledge
obs N.W. and S.E. Enter pine
and cedar.

Ascend gradually.

39.70 Set a sand stone 12 x 10 x 8 ins

Six divisions of 9218.820 E.

8 ins in the ground for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on on N face;
from which;

A cedar 6" diam. b/s $N 68^{\circ} E$
65 lbs dist marked;

$\frac{1}{4}$ S 7 B.R.

A Pine 5" diam. b/s $S 53^{\circ} E$
50 lbs dist marked.

$\frac{1}{4}$ S 18 B.R.

descend gradually.

52.36 East edge terrace b/s N and S.
Leave trees. descend abruptly.

71.71 Foot of steep descent.

descend gradually.
The cor of secs 7, 8, 17 and
18.

Land mountainous.

Soil rocky. 40% rock.

Tinder low pine and cedar
on 16.15 elev.

Mountainous land on 79.70 elev
Dec 27-1898

$N 0^{\circ} 03' W$ bet secs 7 and 8.

descend.

7.00 Cross Canyon wash b/s S.E.

ascend.

17.00 Foot of spur b/s E and W

slopes west. ascend abruptly.

20.50 Top of spur descended.

27.00 Gulch b/s west. ascended.

over broken spurs.

40.00 Top of rock point faces west.

Set a sand stone 16x10x8 ins
11 ins in mound of rock,
(impossible to dig on ac-
count of rocks) for $\frac{1}{4}$ sec
cor marked $\frac{1}{4}$ on W
face and raised a
mound of stone 2 ft.

Subdivisions of T21S R20E.

base 1 $\frac{1}{2}$ ft high or 8' cor.

Pits impracticable

descend abruptly.

42.0 Rock gulch dries west.
descend abruptly.

48.00 Spur slopes N. W.

54.00 Wash dries S. E.

Since it is impossible
to chain further on account
of abrupt cliffs; therefore
from this point we tri-
angulate as follows.

We set a flag on line on
top of terrace, then measure
a base line $889^{\circ}57'$ or 10.00'
to a point where the flag
lies $N43^{\circ}51'E$; from the flag
the trend of base lies $S43^{\circ}51'E$.
Therefore the required dist is
tang $46^{\circ}06'$ x base, or

$$10.3915 \times 10 = 10.39 \text{ chs.}$$

$$10.39 \text{ chs} + 54.00 \text{ chs} = 64.39 \text{ chs.}$$

64.39' Top of first terrace 300 ft high
lies SW and N.E.

Enter cedar and pine.

- 80.00 Set a sand stone 16x14x5-in
11-in in the ground for
cor of secs 5, 6, 7 and 8
marked with 5 notches on
S and E edges; from which,
a cedar 12" diam lies $N63^{\circ}30'E$
36 lbs dist marked;

T21S R20E S 5 13?.

A cedar 10" diam lies $N67^{\circ}30'$
149 lbs dist marked.

T21S R20E S 6 13?.

A cedar 14" diam lies $S45^{\circ}30'$
35 lbs dist marked

T21S R20E S 7 13?.

No other trees of suitable
size are available

Subdivision of T 21 S 92 E.

Therefore we raised a mound of stone 2 ft base
1 $\frac{1}{2}$ ft high N of cor.

Pits impracticable.
Land mountainous.

Soil rocky 40% rate.

Dominant flora pine and cedar on 15-61 chs.

Mountainous land on 8000 chs.

Dec 28-1898:- At 10:00 a.m. on
line t. we set off $39^{\circ}01'N$ on
the lat arc, $23^{\circ}14'E$ on the decl
arc and determine a true
meridian with the solar
at the cor of secs 5, 6, 7, and 8.
Hence we run

$389^{\circ}58'E$ on a random
line bet secs 5 and 8.

Set trees $\frac{1}{4}$ sec cor.

40.00 Intersect N and S line 10 chs
N of cor of secs 4, 5, 8 and 9.
Hence we run.

$N89^{\circ}5.4'W$ on a true line
bet secs 5 and 8.

Desert. Through scattering
cedar and pine.

2.90 Head of rock wash dir N.E.
ascend.

17.10 Trail bis S.W. and N.E.

Descend gradually. Sparse
scattering cedars.

wash dir S.W. ascend.

Set a flint stones $18 \times 13 \times 4$ ins
 $1\frac{1}{2}$ ins in the ground for $\frac{1}{4}$
sec cor marked $\frac{1}{4}$ on N face
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
N of cor.

Pits impracticable.

Subdivisions of 921 S 920 E.

descend.

50.00 Head of rock gulch obs 3.60
ascend gradually.

53. Enter cedar and pine.

- 79.9 The cor of secs 5, 6, 7 and 8,
semi-mountainous.
Soil rocky. 4th rate.

Timber floor pine and
cedar on 45-54 chs

Mountainous land on 79.94
deg 28' 18" S., at this cor we
set off 23° 14' S on the decl and
and at 0° 00' line to observe
the sun on the meridian.

The resulting lat is 39° 6' N.

Knowing from the survey of
the west half, that the cor of
secs 1, 6, 7, and 12 can not be set,
we run west on a true line
but sec 6 and 7. Enter cedars.

7.00 West edge of first terrace bank
N and S. Since it is im-
possible to chain further on
account of abrupt ledge on
both sides of canon we
triangulate as follows.

It being impossible on
account of the rough nature
of the country to measure a
base line of sufficient
length for triangulation on
the east side of canon, we
set a flag on line on
west side and leave
flag at transit point; we
then proceed to flag first
set and measure a base
line 315° 30' or 8.00 chs to a
point where the flag on

Subdivisions of T 21 S or 20 E.

East-side of canon has N 66° 55' E from the flag the south end of the base has S 66° 55' E; therefore the angles taken in order of measurement are respectively 105° 30', 51° 25' and 23° 05', their sum being 180°; then we compute dist as follows.

$$\log \sin 51^{\circ} 25' = 9.893041\sqrt{}$$

$$\log 8.00 = \underline{\underline{.903090\sqrt{}}}$$

$$10.796131\sqrt{}$$

$$\log \sin 23^{\circ} 05' = \underline{\underline{9.593363\sqrt{}}}$$

$$\log \text{required dist} = 1.202768\sqrt{}$$

Required dist is therefore 15.95 chs
15.95 chs + 7.00 chs makes

22.95 To a point 1.00 ch west of W of ledge west-side of canon.
Note: It was impossible on account of abrupt cliffs to obtain longer base line.
Enter cedar.

39.00 Rock gulch obs N.E. ascended.

40.00 Set a sand-stone 18x10x5 ins
12 ins in the ground for $\frac{1}{2}$ sec
cor marked $\frac{1}{2}$ on N face and
raised a mound of stone
2 ft base $1\frac{1}{2}$ ft high N of cor.
Pits impracticable.

Descent.

Wash obs S.E. ascended.

Leave cedar. ascended abruptly.
One side of main mountain has N and S.

Impossible to survey further on account of abrupt cliffs.
Therefore we set a sand-stone
18x8x6 ins 12 ins in mound
of rock (impossible to dig
on account of rock) for
a vertical cor. & cor of
secs 1, 6, 7, and 12; marked

Subdivisions of T 21 S R 20 E.

M.C. on N.E. face with 5 notches
on S and 1 notch on N edges and
raised a mound of stone 2 ft
base $1\frac{1}{2}$ ft high west of cor.
~~point for see cor fall in cliff, impossible to set.~~
Pits impracticable.

- 79.60

Land mountainous.

Soil rocky, 4 ft rate.

Trees scrub pine and cedar
on 39.05 lbs.

Mountainous land on 79.60 chs

N $0^{\circ}03'W$ on a tree line bet
secs 5 and 6.

Descent gradually through cedar
and pine.

9.00 rock gully des west. ascend.
descend.

12.00 23.00 Foot of high rock point slopes
S.east seemed abruptly lean

9.30 27 of point descent along
N.east slope.

40.00 On clay point slope N.east at
foot of cliff 40 ft high. lowered
set a sand stone 12 x 10 x 7 ins
8 ins in the ground for $\frac{1}{2}$ sec
cor washed $\frac{1}{4}$ in by rain
and raised a mound of
stone 2 ft base $1\frac{1}{2}$ ft high
west of cor.

Pits impracticable.

descend.

43.00 Bottom of gully descent.
descend abruptly to

- 48.83 Top of low ledge shelf lies
E. and W.

Intersect fourth standard.
parallel south 6.10 chs
East of standard cor of secs
31 and 32 heretofore described.
Set a sand stone 18 x 16 x 6

Subdivisions of T 21 S R 20 E.

sec 12 has in mound of rock
(impossible to dig on account
of rocks) for closing cor of
secs 5 and 6 marked C.C.
on S face with 5 grooves on
E and 1 groove on N face
and raised a mound of
stone 2 ft base 1 $\frac{1}{2}$ ft high
S of cor.

Pits impracticable.
Dried mountainous.
Soil rocky and sandy.
3rd and 4th rate.
Juniper scrub pine and
cedar on 23.00 chs.
Mountainous land on 46.83 chs.

In order to complete the closing
of the exterior of this town-
ship we go to $\frac{1}{4}$ sec cor between
secs 6 and 7 from which
we run south on an
offset line in sec 7.

41.00 Set a point from which
we run west a distance
of 39.65 chs where we in-
tersect the west boundary
of the township at $\frac{1}{4}$ sec
cor between secs 7 and 12
herefore described.

Dec 28, 1898

Dec 29, 1898: In order to make a
final test of the instrument
we examine the adjustments
of the transit and correct
the level and collimation
errors; then to test the solar
apparatus by comparing.

Subdivisions of 9215920 E.

its indications resulting from solar observations made during a.m. and p.m. hours, with a true meridian determined by observations on Polaris we proceed as follows.

At our camp which is situated near the center of the township; latitude $38^{\circ}54'N$ longitude $109^{\circ}44'E$ set off $38^{\circ}54'N$ on the lat arc; $23^{\circ}06'S$ on the decl arc and at 4:00 a.m. l.m.t. determine with the solar a true meridian and mark a point thereof on a stone firmly set in the ground 5.00 ells N of our station.

Dec. 29-1898.

Dec 30-1898. At 0¹:00 a.m. l.m.t. we observe Polaris at western elongation in accordance with Manual of Instructions and mark a point in the line thus determined on a peg driven in the ground 5.00 ells N. of our station.

At 7:00 a.m. in l.m.t. we lay off the azimuth of Polaris $103^{\circ}55'$ to the east and mark the true meridian thus determined by cutting a small groove in the stone set Dec 29-1898. on which the true meridian falls 0.3 m. east of the mark determined by the solar.

At 9:00 a.m. l.m.t.

Subdivisions of 9th 21st & 20th E.

meet off $38^{\circ}59'$ on the lat are
 $23^{\circ}00'$ on the decl are; and
mark a point in the true
meridian determined with
the solar by a cross on the
stone already set 5 mts N of
our station; this mark falls
0.4 mts east of the true meridian
established by the Polaris
observation.

The solar apparatus by pm.
and am. observations
define positions for two
meridians respectively about
 $0^{\circ}16'$ west and $0^{\circ}21'$ east of the
true meridian established
by the Polaris observations;
therefore, we conclude that
the adjustments of the
instrument are satisfactory.
The magnetic bearing of
the true meridian at
 $9^{\circ}30'$ a.m. is $N 15^{\circ}26' W$,
the angle thus determined
reduced by the table day 100
gives the mean noon decl. $15^{\circ}18' E$.

No officer authorized to ad-
minister oaths, other than
myself, being available
without great inconvenience,
delay, and expense, I
administer the fiscal oaths.

David H. Blossom
U.S. Dep Surveyor.

General Description.

This township contains a
considerable area of land suitable
for agricultural purposes.

Subdivisions of T 21 S or 20^E

and fruit-culture, the same being situated on the bluffs and lower hills.

A high line ditch could be taken from Grand River which would water all of the best land in this township as well as the townships adjoining west and south, all of which contain good land if properly irrigated.

The soil is a sandy loam mixed in places with black adobe and gravel.

During the fall and winter months good grazing can be found in all the lower portions of the township and numerous bands of sheep are herded in this vicinity.

At present the only water available within the township is that furnished by springs situated in T 20 S R 20 E, about two miles from the north boundary of this T. J. These springs are claimed by the Rio Grande Western Railway and are used to furnish water for railroad purposes, the water being conducted by a pipe line to the tanks at Thompson Spring's station. The pipe line is situated near the left bank of Thompson's wash but can not be discerned by marks upon the surface of the ground with sufficient accuracy to note intersections with section lines.

Portions of the two northern

Subdivisions of T 21 S R 20 E.

Tiers of sections are situated on the flat tops of the so called "Book cliffs" which rise perpendicularly from the central portion of the Mts.

The tops of the mesas are covered with a dense growth of scrub cedar and piñon pine, this being the only timber found within the township. During the fall and winter good grazing can be found here and several herds of cattle are wintered in this locality.

Extensive veins of coal are visible in the north & eastern portion of the township and tract section 1 should be set aside as coal land.

No indications of mineral other than coal are found within the township.

The town of Thompson Springs is situated near the center of sec 21 and contains about twenty five inhabitants most of whom are railroad employees. Extensive sheep shearing pens are located here, owned by the Rio Grand & Western Railway.

H. G. Ballard and brother own and operate a store and hotel; and claim some land enclosed by fence in south eastern portion of sec 21, the same being D. E. no 4519.

Their improvements in sec 21 in the shape of

Subdivisions of T 21 S R 20 E.

Buildings, fencing, etc should
be valued at about \$35.00.

No trace of P.M.C. Albermarle
D.E. no 2405 can be found.
The Rio Grand Western
Railway runs through the
township from west to east.

Alfred B Lewis,
David A Blossom
U.S. Army Surveyors.

To have surveyed another township
would have carried the cost of the work
beyond the liability named in our
contract. Therefore in accordance
with section 10 of our special instructions
we discontinue the survey.

Alfred B Lewis
David A Blossom
U.S. Army Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of meanders and subdivisions of T 23 S, R 16 E and the subdivisions of T 21 S or 20 E East of the salt lake base and meridian, Utah, showing the respective capacities in which they acted:

C. Andersen, Chainman.

C. Andersen, Chainman.

C. Andersen, Moundman.

C. Andersen, Moundman.

C. Andersen, Axman.

Frank A Gorley, Axman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blossom, United States Deputy Surveyor, in surveying all those parts or portions of the meanders and subdivisions of T 23 S or 16 E and the subdivisions of T 21 S or 20 E, East of the salt lake base and meridian, Utah, of the salt

Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

C. Andersen, Chainman.

C. Andersen, Chainman.

C. Andersen, Moundman.

C. Andersen, Moundman.

C. Andersen, Axman.

Frank A Gorley, Axman.

Frank A Gorley, Flagman.

Subscribed and sworn to before me this 30th day of December, 1898 }

SEAL

David H Blossom,
U.S. Dep Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfred B. Lewis, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Jacob V. Blazier, United States Surveyor General for The District of Alaska, bearing date of the 2nd day of May, 1897, I have well & faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for The District of Alaska, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the exterior subdivision of the 2nd meridian of Township 20 S. R. 16 E., the 2nd division of the 2nd meridian of Twp. 22 S. R. 16 E., and the exterior subdivision of T. 21 S. R. 20 E.

Marine and in the State of Alaska, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for The District of Alaska, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Alfred B. Lewis

United States Deputy Surveyor.

Subscribed by said Alfred B. Lewis, and sworn to before me }
this 17th day of April, 1897 }

Charles A. Schellendorf, 7. 2. 1897
United States Commissioner for the
District of Alaska.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

189

The foregoing field notes of the survey of _____

executed by _____

under his contract No. _____, dated _____, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred B Lewis and David H Blossom, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of meanders and subdivisions of T 20 S R 16 E, T 22 S R 16 E, T 23 S R 16 E, and the subdivisions of T 21 S R 20 E of the Salt Lake Base Meridian Uts showing the respective capacities in which they acted:

A. H. Rock, Chainman.
G. Mortenson, Chainman.
....., Moundman.
....., Moundman.
....., Axman.
....., Axman.
....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred B Lewis and David H Blossom, United States Deputy Surveyor, in surveying all those parts or portions of the meanders and subdivisions of T 20 S R 16 E, T 22 S R 16 E, T 23 S R 16 E, and the subdivisions of T 21 S R 20 E of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

A. H. Rock, Chainman.
G. Mortenson, Chainman.
....., Moundman.
....., Moundman.
....., Axman.
....., Axman.
....., Flagman.

Subscribed and sworn to before me this 30th }

day of December, 1898



David H Blossom,
U.S. Dep Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

of the Last State Line

..... record..... meridian in the State of Michigan, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for the District of Michigan, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 28, 1846.

David H. Blodget
United States Deputy Surveyor

Subscribed by said *David H. Weston*, and sworn to before me
this *19th* day of *October*, 1828.

A circular seal impression featuring the word "SEAL" in the center, surrounded by a decorative border.

Jacob 1378 Blair
The Young General for Pitts.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

UNITED STATES SURVEYOR GENERAL
Seth Pelegay, Esq., Clerk, Boston, May 1st, 1809.

The foregoing field notes of the survey of the section of the road from
20th Range 20 East to the Lake Erie line b Geocodes
etc.

executed by Alfred C. Lewis, Gen. David H. Blossom,
under my contract No. 219, dated December 12th, 1897, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Jacob B. B.
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, _____, has been correctly copied from the original notes on file in this office.